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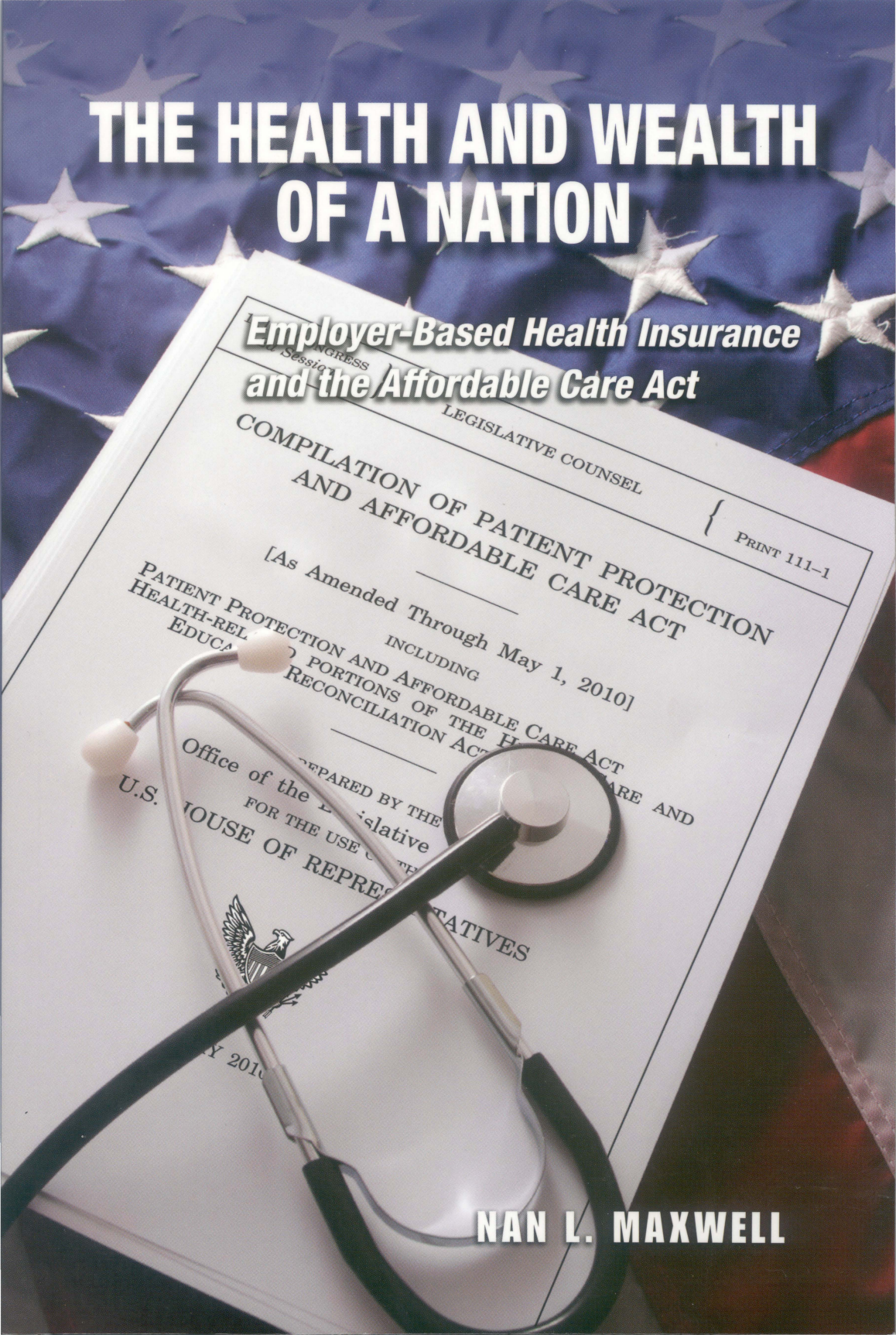
# The Health and Wealth of a Nation: Employer-Based Health Insurance and the Affordable Care Act

Nan L. Maxwell
*Mathematica Policy Research*

# THE HEALTH AND WEALTH OF A NATION

## Employer-Based Health Insurance and the Affordable Care Act




NAN L. MAXWELL

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# Preface

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, provided the first major health care reform in 45 years. The so-called Affordable Care Act (ACA) was enacted to provide high-quality, affordable health care for all Americans. Once all of its provisions become effective, circa 2014, the goal is to ensure that all U.S. citizens receive coverage for essential health benefits. The reform retains the basic structure of our current health care system and assigns shared responsibilities for achieving its goal among employers, insurers, government, and individuals. Employers gain additional responsibilities in providing insurance to workers, with additions ranging from minimum coverage and payment requirements (for large firms) to additional informational requirements. Health insurance providers gain new responsibilities that include new required service provisions, taxes, fees, and reporting obligations. Expanded government responsibilities include creating a new market for insurance—the American Health Benefit Exchanges (referred to henceforth simply as "exchanges")—and making premium subsidies available to some firms and individuals. Individuals acquire the responsibility of carrying essential health coverage or facing penalties.

It is far too soon to assess the impacts of such sweeping legislation. We can, however, examine the potential for change in one area—employment—by examining how firms behaved with respect to employment-based health insurance before ACA deliberations and by using that behavior to predict the changes that might occur once the legislative requirements become fully implemented. It is within this context that the research in this book unfolds.

No man is an island, and this research upholds the axiom, for it took a small army of individuals to administer the survey, execute the research, and shape the investigation that produced this study. Funding for the study came primarily from the W.E. Upjohn Institute for Employment Research and the University of California's California Program on Access to Care. Much of the research and writing was done while I was the executive director of the Human Investment Research and Education (HIRE) Center and a professor and chair of the Department of Economics at California State University, East Bay. Early revisions were undertaken, in part, while I was a visiting researcher at the Public Policy Institute of California, and final revisions were completed while I was employed at Mathematica Policy Research. All institutions provided supportive research environments.

The research springs from discussions and joint work with colleagues from many parts of my life. The survey upon which the study is grounded

was initiated because I and Lynn Paringer, a health economist, took different approaches to the study of how firms compensate workers. In the course of our discussions, we structured the design of the survey and the subsequent research agenda. That line of inquiry was abruptly altered in 2010 when the ACA was signed, for it will dramatically change the landscape in which firms offer health insurance. Kevin Hollenbeck and Susan Houseman refocused the research and, in the process, helped produce a more interesting and relevant monograph. I am eternally grateful for their vision and their patience as I struggled with the shift. The early work also benefited greatly from discussions or comments on drafts from Ron D'Amico, Jed DeVaro, Debbie Reed, Steve Woodbury, and anonymous referees. Gary McBride worked with me to ensure the discussions of the tax code were accurate. I only hope I interpreted the information he provided correctly. Finally, Benjamin Jones enhanced the readability of the book with his meticulous editing, and Erika Jackson typeset the manuscript, tables, and figures.

A legion of Cal State East Bay students called 2,190 firms to obtain the 1,427 surveys used in this study. Nathan Benedict, Teresa Hoang, Sung Kim, and Mark Sawkar spent a summer piloting the survey and, in the process, helped develop a finely tuned instrument and build processes to support sustained survey efforts. Benedict, Kim, and Sawkar spent the following year surveying firms, training other surveyors, structuring databases, and building and implementing quality assurance processes for data integrity. They were joined in surveying by Helene Bauer, Jens Eichler, Fei Fan, Sandra Filius, Rhoda Freelon, Dawn Guenthardt, Eva Hegemer, Natalie Laqua, Esther Prenzel, Denise Rabe, Ulrike Ruemer, Bilijana Serafemovska, José Luis Spahr, and Danielle Talsma. Ryan Hoadwonic often served as the on-the-spot problem solver while the surveys were in the field and data were being processed.

It was only because of the painstaking work of another group of students that the data collected were able to serve as a springboard for the research: Ralf Maywald and Damir Fekovic entered data with such care that they also provided quality assurance. Rhoda Freelon spent countless hours identifying inconsistencies in the database, verifying information, and following up on incomplete information. Freelon led the team of students that helped build the initial rounds of tables and charts: Deepa Iyer, Michelle Hilliard, and Tiffany Roberts. Tammy Soo verified later rounds of tables.

As always, my biggest debt and eternal gratitude go to my husband and daughter, Ronald and Abigail D'Amico. They challenge my thinking at every opportunity and provide the critical support that allows me to endure. Together we conquered the trials and tribulations of my own struggles with surveying, analyzing, and writing about firms and health care coverage and of my family's personal struggles with the prereform health care system. There is something

poignant about analyzing data for a study on health care while awaiting results of your daughter's transplant surgery. My work is better and I am stronger because they are my life.

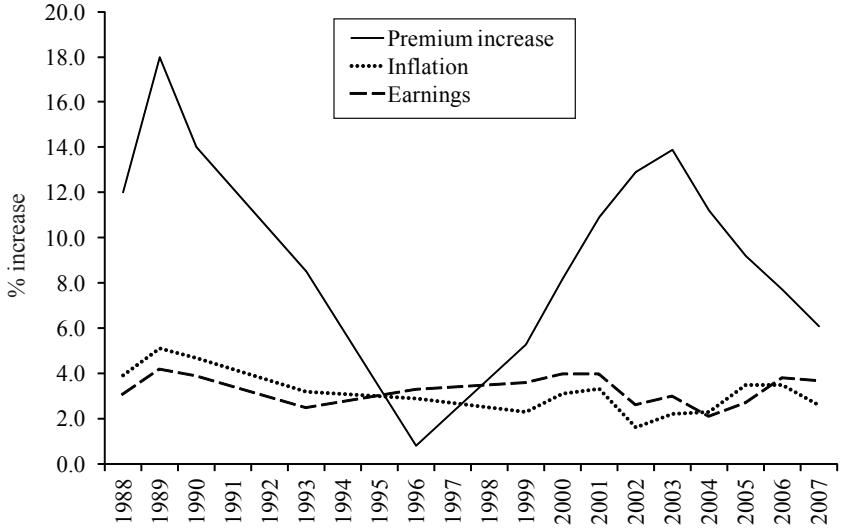
While the study would not have been possible without these individuals, they bear no responsibility for any remaining errors in analytics or logic. That responsibility lies with me alone. Some of the individuals involved in the research are ardent proponents of nationalized health care, and some are ardent proponents of free markets. I'd like to think that the approach taken in this research benefits from both perspectives. My desired outcome for the research might be best summed up with an anecdote from a voir dire process I was called for at the Superior Court of California some years ago. When asked by a prosecuting attorney about my views on drunk-driving laws, I responded, "There are costs and benefits to all legislation." I was promptly dismissed from jury selection. Undaunted by this rejection, I continue to strive for a balanced perspective in assessing policy, including the ACA. I only hope not to be dismissed because of it.

# 1
# Health Care Coverage in the United States

One of the major social policy issues of the first decade of the twenty-first century was access to quality health care. Only 4 percent of the population in 2009 said the health care system worked well and did not need to be changed, whereas 14 percent said the system needed a complete overhaul (Blakely 2010). Consider that about 41 percent of Americans in 2006 were very worried about having to pay more for their health care or insurance (Kaiser Family Foundation 2007). This exceeds the percentage that worried about paying their rent or mortgage, being the victim of a terrorist attack or violent crime, or losing their savings in the stock market. Nearly 30 percent of Americans polled in April 2008 said that they had serious problems paying for health care and health insurance (Kaiser Family Foundation 2008a).[1] Between 2003 and 2008, medical bills created financial problems for over half (55 percent) of households with annual incomes of less than $30,000 and for 21 percent of households with annual incomes above $75,000. During that period, medical bill payments caused 17 percent of Americans to use all or most of their savings, 12 percent to be unable to pay for basic necessities, 10 percent to borrow money or get a loan, and 3 percent to declare bankruptcy. About 20 percent of adults had been contacted by a collection agency or had had difficulty paying (nonmedical) bills because of medical expenses.

Access to high-quality health care was eroding, in part, because health care costs were increasing rapidly. Insurers and firms shifted part of these increasing costs to individuals in the form of premium and cost-sharing expenses. Premiums for employment-based plans increased 8.6 percent annually between 1999 and 2005 and exceeded the increase in earnings and prices in each of those years (Figure 1.1). Between 2000 and 2007 the compound growth in health insurance premiums stood at 114.1 percent, as compared to a 29 percent growth in earnings and a 24.3 percent growth in prices (Claxton et al. 2007). By the end of the first decade of the twenty-first century, the average worker contributed

**Figure 1.1 Annual Increases in Premiums, Prices, and Earnings, 1988–2007 (%)**

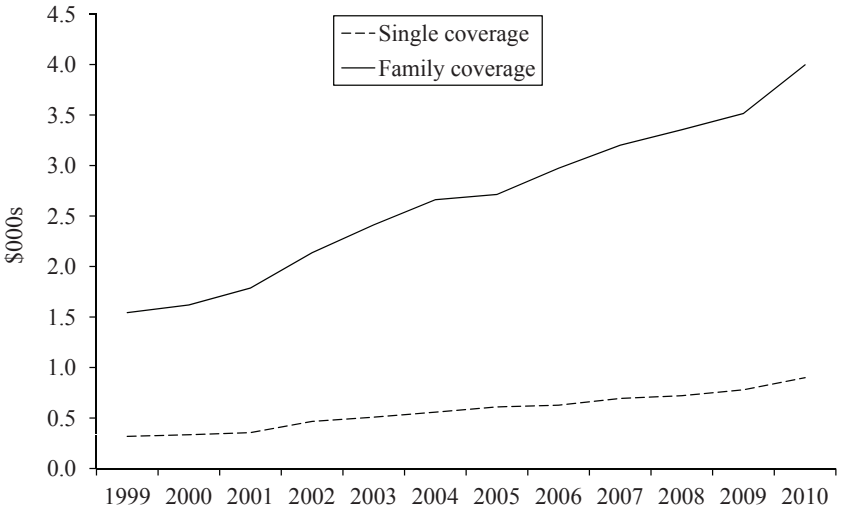



SOURCE: Claxton et al. (2007).

18 percent of the premium for single coverage and 29 percent for family coverage to an employment-based insurance premium (Figure 1.2). Insured individuals also faced increasing deductibles (payments of the full cost of medical expenses up to a certain limit), copayments (a fixed payment upon receipt of a medical good or service), and coinsurance (payments of a percentage of each medical bill), in addition to premium payments (Robinson 2002).

The uninsured were among those hardest hit by rising health care costs, in part because they often lacked access to both health care and income. Over half of the uninsured had no usual source of health care, slightly over one-third had income at or below the federal poverty level, and another third had income at one to two times the federal poverty level (Kaiser Family Foundation 2011). The health consequences of being uninsured were severe: about 20 percent of adults who were uninsured for at least one year reported they were in fair or poor health, compared to about 11 percent with continuous health coverage (Insti-

**Figure 1.2 Worker Premium Payments between 1999 and 2010 ($000s)**




SOURCE: Claxton et al. (2010).

tute of Medicine 2001). The uninsured used, on average, one-half to two-thirds the services of those with private insurance and were more likely not to use health services at all (Institute of Medicine 2001). The lack of use was not necessarily due to a lack of need. About one-quarter of these uninsured adults had postponed seeking needed health care, and another one-quarter lacked the funds for prescription drugs (Kaiser Family Foundation 2011). About 18,000 uninsured individuals under age 65 died in 2001, which is about the same number that died from diabetes and from strokes (Institute of Medicine 2001).

But although the uninsured were most directly affected by the problem, the general public, too, faced economic consequences from relatively high rates of uninsurance. When the uninsured use health care services, they are more likely to use high-priced emergency care services or become hospitalized for reasons that could have been avoided with preventive care (Institute of Medicine 2001). This cost the United States about $35 billion in services in 2001; about $23.6 billion of those tax dollars—two-thirds—were used to reimburse hospitals that had a

disproportionate share of uninsured patients. The uninsured under age 65 cost the United States between $65 and $130 billion in lost productivity in 2003 (Institute of Medicine 2004).

In 2010, the state of health care and access to it in the first years of the twenty-first century provided a powerful impetus for passage of the first major piece of health care reform legislation in 45 years, the Patient Protection and Affordable Care Act (commonly known simply as the Affordable Care Act, or ACA), as amended by the Health Care and Education Reconciliation Act. My research links the past and the future of health care by examining the behavior of firms with respect to offering health insurance in the years prior to the reform and using my findings to inform the potential for change in the years after the ACA is implemented. My general line of inquiry focuses on the question, "How might the ACA alter a firm's offer of insurance, and how might these changes affect the disparities in employment-based insurance coverage between low-wage and high-wage workers?" My research is grounded in the analysis of the California Health and Employment Surveys (CHES) data. The CHES surveyed a cross section of 1,427 private sector firms that had five or more workers.[2] It telephoned firms from June 2005 through December 2006 about their benefits, the characteristics of their typical health plans, and the nature of their workforce; the survey received a 67 percent response rate.[3] I go into more detail about the methodology of the CHES survey at the end of this chapter.

## THREE BEHAVIORS OF FIRMS BEFORE THE ACA

My research examines employment-based health insurance offers in the years prior to the ACA being actively debated. It provides three key insights about firms' behaviors before the ACA that provide a basis upon which we can assess change.

**1. The offer of employment-based health insurance differed between firms with a majority of low-skilled workers and those with a majority of high-skilled workers.** My analysis indicates that firms with a majority of low-skilled workers were less likely to offer insurance than other firms in 2005–2006. (In this book I use "2005–

2006" as shorthand for the 19-month duration of the survey, as well as simply to refer to the general time period.) About 68 percent of firms with a majority of low-skilled positions and 84 percent of those with a majority of high-skilled positions offered health insurance. Even if a low-skilled firm offered insurance, its offer generally had more restrictive access and was of lower quality. Low-skilled firms made employees work, on average, 33.3 hours per week and wait nearly 3.6 months before an offer was extended, while high-skilled firms made employees work, on average, about two hours less per week and wait about three weeks less before offering insurance to them. Fewer than 4 percent of low-skilled firms—but about 19 percent of high-skilled firms—did not make workers wait before benefits began. Low-skilled firms paid, on average, 87 percent of the premium for health insurance, about 5 percentage points less than high-skilled firms. Only 44 percent of low-skilled firms offered workers a choice in plans, which is about 14 percentage points less than for high-skilled firms.

These differences produce striking disparities when differences in the offer by workforce skills are superimposed on those by firm size. A 36-percentage-point difference exists between small, low-skilled firms and large firms: about 61 percent of small, low-skilled firms offered insurance, compared to 97 percent of large firms (irrespective of workforce skills). Access to the offer is equally as disparate: a 16-percentage-point differential existed between the 70.5 percent of small, low-skilled firms that made employees work more than 30 hours a week before extending to them an employer-sponsored health insurance (ESI) offer and the 54.6 percent of large, high-skilled firms that did so. Even greater differences existed in the time a worker must wait before receiving an offer. Virtually no small, low-skilled firms offered workers insurance immediately upon employment, and over 30 percent made workers wait more than three months. In contrast, over 35 percent of large, high-skilled firms extended an ESI offer immediately, and fewer than 5 percent made workers wait for more than three months before making them an offer.

**2. When health care costs increased, the vast majority of firms that offered health insurance responded by taking actions that affected workers' compensation.** The increases in health care costs that occurred in the three to five years preceding 2005–2006 caused about

70 percent of firms to change their workers' compensation in some way, typically by reducing the quality of the health insurance offer. A sizable proportion of firms also said they had reduced other forms of compensation. When health care costs increased, about 45 percent of firms said they raised the worker's price for health insurance by increasing premium payments or copayments, about 30 percent reduced the choice in employment-sponsored plans, about 16 percent gave workers fewer raises or reduced wages, and about 13 percent reduced other benefits.

**3. Most small firms that did not offer health insurance felt its cost was too high for the firm or its workers.** About 74 percent of small firms—those with fewer than 50 workers—offered health insurance. About 83 percent of those that did not offer insurance felt its cost was too high for it to be offered, about 60 percent felt the firm was too small or new to offer it, and over 50 percent did not offer it because they thought their workers could not afford it.

## FOUR WAYS IN WHICH THE ACA MAY INFLUENCE FIRMS

These behaviors provide a basis for assessing how firms' behavior might change after the ACA is implemented and how those changes might affect disparities in who receives health insurance from an employer. My analysis provides four key insights about the potential influence of the ACA.

**1. The ACA will likely influence the behavior of virtually all firms that offered insurance at the time of its passage.** My research suggests that about 56.5 percent of large firms did not meet the ACA requirements for covering workers in 2005–2006. These firms will either alter their offer to meet the requirements of the legislation or face potential financial penalties. Furthermore, at least 95 percent of the employment-based health insurance plans with the largest enrollments did not meet the ACA requirements for services covered, which suggests that virtually all the plans firms offered might change with the ACA.

**2. The ACA is unlikely to incentivize small firms to offer insurance if they did not already offer it when the bill was passed.** Although the ACA makes no specific requirements of small firms to offer insurance, it provides tax credits for premiums for some firms if they offer it. My research suggests that small firms that did not offer insurance before the ACA might not use the credit as an incentive to offer it for three reasons: 1) relatively few small firms (about 17 percent) are likely to be eligible for the tax credit for premiums, 2) the typical reasons small firms dropped insurance were that it was too expensive and that the ACA has the potential to increase premiums, and 3) only about 16 percent of small firms not offering insurance perceived negative ramifications to not offering it.

**3. The differences in employment-based health insurance coverage and in the quality of the offer made to low-wage and high-wage workers is likely to converge when the ACA is fully implemented.** My research suggests that the ACA might reduce differences in the offer of health insurance that low-skilled and high-skilled large firms make to workers. This reduction would reduce the prereform disparities in employment-based insurance coverage and offers between low-wage and high-wage workers. The coverage might converge for at least two reasons. First, a greater percentage of low-skilled than high-skilled large firms did not meet the ACA requirements for coverage and will therefore be required to increase their coverage or face potential financial penalties. Second, low-skilled firms that did not offer insurance were more likely than high-skilled firms to see negative consequences from not offering it and to express an interest in offering it in the future, which might make them more willing to change their behavior if they could benefit from the ACA tax credits for premiums.

Convergence might also occur in the quality of the offer by firms, as defined by its cost to workers and the choice in plans offered to workers. Firms with a majority of low-skilled workers that offered health insurance prior to the ACA made lower-quality offers than firms with a majority of high-skilled workers. Large firms with a majority of high-skilled workers were more likely than comparable low-skilled firms to reduce the quality of the offer in the past when health care costs increased, and they generally made a higher-quality offer in the pre-ACA period. As a result, low-wage and high-wage workers in large

firms are likely to see the quality of their offers converge as high-wage workers see lower-quality offers.

**4. Disparities in the offer of benefits other than health insurance might increase between low-wage and high-wage workers.** Prior to the ACA, workers in low-skilled firms received fewer benefits than workers in high-skilled firms, particularly in the area of paid time (vacation, holidays, and sick leave), supplemental health (dental, life, long-term disability, and vision insurance), and pensions. High-skilled firms were less likely than other firms to decrease the offer of these benefits when health care costs rose. Because high-skilled firms offered more benefits prior to the ACA and were less likely to alter their offer when health care costs increased, my analysis suggests the benefits offered between low- and high-skilled firms might diverge after the ACA, as workers in low-skilled firms might be offered fewer benefits if the ACA increases health care costs.

## A Proviso to the Predictions of Firm Behavior in This Book

Of course, using past behavior to predict future change is always risky, and it is especially risky in predicting the impact of the ACA when we do not know what aspects of the legislation are going to be binding or not binding on employers. Nor do we know the structural changes in the economic environment that the Great Recession might bring. Still, because the ACA retains employment-based health insurance as the cornerstone of health care coverage for the nonelderly population, health policymakers might take notice of the potential for behavioral changes in firms, as revealed by this study.

The remaining sections of this chapter provide a backdrop for this research. I describe health care coverage prior to the ACA reform and the nature of the health care structures affecting employment that are designed to unfold once the ACA is fully implemented. I then broadly describe my research and the content of each of the following chapters.

## HEALTH CARE COVERAGE PRIOR TO REFORM

At the turn of the twenty-first century, three Americans might enter a discussion about their health care and talk about very different experiences if each had different types of health care coverage. Health insurance was strictly classified as either private or government-funded. Private coverage funded 52.7 percent of the expenditures on health care in 2008, a decline from 56 percent in 2000 and 75.3 percent in 1960.[4] Private coverage was split into two distinct components: individuals could 1) purchase insurance from a private company in the nongroup market or could 2) receive coverage from an employer or union in the group market. The division in the private markets combined with government coverage and made for a tripartite system of health care: government, nongroup, and employment-based coverage. (Gruber [2008] provides a good discussion.)

Each segment of the tripartite system served a different population. The government served primarily the elderly and indigent. About 61 percent (in 2001) of the elderly and about half (48.3 percent in 2005) of the nonelderly below the poverty line received coverage from the government. The nonelderly, nonindigent primarily received coverage from private sources. About 6–7 percent had coverage from private, nongroup sources and another 61 percent had it from their employment in 2008 (Fronstin 2009). About one-third were uninsured (Fronstin 2009).

Each of the three segments had its own set of requirements for obtaining coverage and its own standards for determining services and coverage levels. Government health insurance included federal programs such as Medicare, Medicaid, military health care, the State Children's Health Insurance Program (CHIP), and programs targeted at those with specific health problems (e.g., the Ryan White Care Act), as well as individual state health plans.[5] Medicare, financed primarily through a payroll tax, provided health insurance for individuals over age 65 and disabled persons under age 65 after a two-year waiting period. Medicaid, financed with general tax revenue at both federal and state levels, provided health care for low-income people, particularly those who qualified for cash welfare payments, children in poor families, poor pregnant women, and the low-income elderly and disabled.[6] Chil-

dren and some adults (mostly parents) could receive coverage through CHIP.[7]

Provisions and coverage in private markets were governed by insurers who sought to minimize adverse selection in the pools of individuals to whom they provided coverage. The potential for adverse selection occurred because an individual's propensity to buy insurance was positively correlated with his or her expected use of health care coverage. Individuals with higher risks for using health care bought more insurance. The primary way insurers managed the risk of adverse selection was by providing coverage to large groups that were not formed for the purpose of obtaining health insurance. By pooling the risk of high health care costs across a large number of individuals, the health care costs become predictable and manageable and, as a result, insurers brought down the price of premiums. Adverse selection created incentives for insurance providers in the nongroup market to manage the risk of obtaining an undesirable pool of individuals by setting premium levels to cover expected levels of use. Insurers used factors associated with expected health care costs (e.g., age, gender, health status, occupation, and geographic location) to set premiums, and they disqualified individuals in poor health from purchasing a plan.

The dynamics of adverse selection meant that individuals purchasing nongroup private coverage typically paid higher premiums for an equivalent amount of coverage than those purchasing group coverage or had less comprehensive coverage. In 2007, the actuarial value (average percentage of covered health care expenses for the typical beneficiary population) of nongroup plans stood at between 64 and 78, compared to a range of 79 to 88 for group plans (McDevitt et al. 2010). Of course, not all individuals saw higher premiums in the nongroup market. The typical 25-year-old paid about half as much for nongroup coverage as the average premium for group plans cost, while 55-year-olds paid 33.4 percent more than it cost.

The dynamics also created incentives for insurers to search for large groups to insure—groups that were formed for reasons far afield from health care. During the latter half of the twentieth century and the very early years of the twenty-first century, the predominant grouping was employees of a large firm who were provided group coverage through employment-based health insurance.

Historically, private plans—for both group and nongroup coverage—were fashioned in one of two categories: 1) indemnity and 2) managed care.[8] Indemnity plans originally provided consumers with a greater choice in providers than managed care plans, while managed care plans generally were more cost-effective. But by the twenty-first century, the distinctions between indemnity and managed care plans had diminished. Many indemnity plans offered coverage through the managed-care type of networks, and many managed care plans included provisions for patients to use an indemnity-type option known as a point of service (POS) plan (Kaiser Family Foundation 2008b).

Under an indemnity plan (sometimes called a fee-for-service or conventional plan),[9] the insurer paid for part of the physician or medical bills in exchange for a monthly premium. The policyholder could choose any doctor, change doctors at any time, and go to any hospital in any location, but paid a specified deductible for specified health expenses (each year) before the insurance payments began. The deductible might be $250 for each person in a family, with a family deductible of $500 kicking in when at least two family members reached the individual deductible. Once the per-year deductibles were met, the insurer and the policyholder shared the bill (i.e., coinsurance) until expenses reached their prespecified yearly or lifetime maximum.

Managed care plans involved an arrangement between the insurer and a selected network of health care providers (e.g., doctors, hospitals), and policyholders usually had significant financial incentives to use the providers in that network, who typically met standards for participation and provision of care. The health maintenance organization (HMO) managed care delivery system offered comprehensive health coverage for a prepaid fixed fee, regardless of how much medical care was needed. HMOs contracted with or directly employed health care providers (e.g., hospitals, physicians, laboratories). With only a few exceptions, policyholders chose from those providers for all health care services.[10] Patients typically had one primary care physician who monitored and provided most medical care and made referrals to a specialist or other health care professionals when needed. HMO plans tended to be very restrictive but to have lower costs than other health care arrangements. The POS option within an HMO provided more flexibility by allowing primary care physicians to refer patients outside the plan's network, although generally at an increased cost to the patient.

Services within the network generally were subject to a minimal copayment, while services outside the network generally were subject to a deductible and a copayment that represented a substantial percentage of the service (e.g., 30 to 40 percent).

A preferred provider organization (PPO) managed-care delivery system combined traditional fee-for-service and an HMO by having policyholders pay for services received (in contrast to the prepaid service plan in an HMO). Patients had "preferred" or "network" providers that made up the PPO, and the price for each type of service was negotiated in advance by the health care providers and the PPO sponsor or sponsors. Generally, a small copayment was required for use of services in the network. Patients could use services outside the preferred network, but they generally paid a higher deductible and coinsurance for doing so. The additional flexibility afforded by a PPO over the HMO increased its cost to the consumer.

The proportion of individuals enrolled in each type of plan shifted over time (Kaiser Family Foundation 2006). In 1988, 73 percent of total enrollment in private plans was in indemnity service plans, 19 percent in HMOs, and 11 percent in PPOs. By 2005, indemnity plans captured only 3 percent of enrollment while HMO plans captured 21 percent, PPO plans captured 61 percent, and POS plans captured about 15 percent.

## NEED FOR REFORM

The tripartite system of health care delivery was unique to the United States and was generally not considered a model of efficiency, public health, or fairness. In 2005, per capita spending on health care was about 13 percent higher in the United States than in the next-highest-spending country and about 90 percent higher than in many other developed countries (Anderson et al. 2006). Increased expenditures did not translate into improved health outcomes, however. The United States ranked twenty-fifth in male life expectancy and nineteenth in female life expectancy among 29 developed countries in 2003. Public health concerns arose from relatively high rates of uninsurance—about 16.7 percent of the U.S. population in 2003. Underimmunization, which

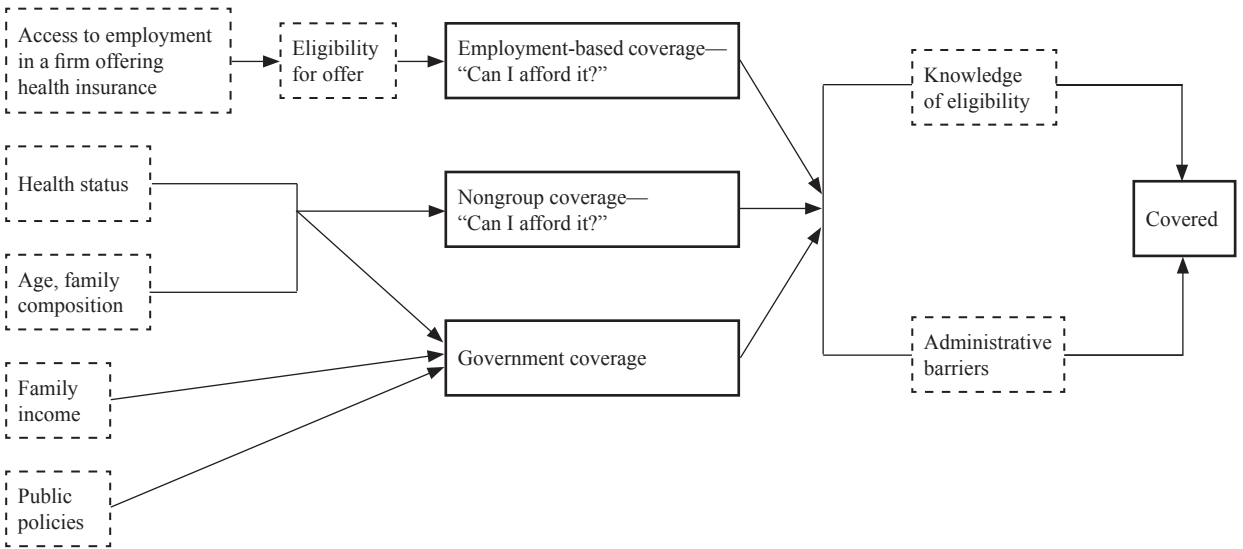
often exists in uninsured populations, increases the vulnerability of communities to outbreaks of measles and influenza, for example (Institute of Medicine 2004).

Fairness issues arose from the systematic exclusion of some individuals from health care. Figure 1.3 visually highlights the myriad of ways in which an individual might have slipped through the cracks and become uninsured. Eligibility for coverage in any of the three segments was a necessary but not sufficient condition for coverage. Eligibility for employment-based coverage required being employed in a firm that offered coverage and being eligible for that offer or being a dependent of such a worker. Individuals not eligible for employment-based coverage might have been ineligible for coverage in the nongroup market if they were too old, in poor health, or employed in a hazardous occupation (for example), and they might not qualify for government coverage unless they met the age, health, family status, or income eligibility requirements.

Individuals eligible for coverage in any of the segments faced administrative, knowledge, and financial hurdles to overcome before they gained coverage. Some individuals faced seemingly large administrative hurdles for enrollment (e.g., multistep applications and verifications for government programs or short open-enrollment periods for private coverage), while others were unaware of their eligibility or of the administrative steps necessary to receive coverage. For example, about 25 percent of the uninsured were eligible for public coverage but did not participate in it in 2006 (Dubay, Holahan, and Cook 2007) for reasons that included administrative barriers, a lack of knowledge about eligibility for coverage, and a lack of effort to obtain coverage (Kenney, Haley, and Tebay 2003).

Still other individuals faced fiduciary hurdles in obtaining health care coverage in the private markets. In the nongroup market, the premium for a family health insurance policy stood at about 25 percent of pretax family income for a family of four with an income at 200 percent of the federal poverty level in 2003. Individuals with health problems faced even higher fiduciary hurdles, as they often were quoted a premium price that was nearly 40 percent higher than those without health problems (Institute of Medicine 2004). In the group market, 56 percent of the employed but uninsured who had access to employment-based insurance believed the coverage was too costly for their income, despite

**Figure 1.3 Health Care Coverage Prior to Reform**




NOTE: Dashed boxes highlight key factors intervening on the path from entities' offering insurance to individuals' gaining coverage.
SOURCE: Author's construction.

their income being above eligibility levels for government coverage (Dubay, Holahan, and Cook 2007).

## Employment-Based Health Insurance: Disparities in Access and Coverage

Employment-based health insurance provides an excellent illustration of the coverage and access problems that existed during the prereform period. Although over 70 percent of the uninsured were in families with at least one full-time worker (Kaiser Family Foundation 2011), only about 61 percent of the nonelderly in 2008 had employment-based health coverage (Fronstin 2009). The disjuncture arose because three distinct factors needed to be in place for workers and their dependents to be covered by employment-based health insurance (Clemans-Cope and Garrett 2006; Fronstin 2007a): 1) the worker's firm must offer insurance, 2) the worker must be eligible to receive the offer, and 3) the quality of the offer must entice the worker to accept it. In 2005, about half of the workers that were not covered by their own employer's health plan were not covered because their employer did not offer coverage, and about 18 percent were not covered because they were ineligible for coverage. About 32 percent were not covered because they declined the offer (Fronstin 2007a). Why would workers not take coverage when offered it?[11] Most declined because they felt they did not need it. Over 60 percent stated they declined the offer because they were covered by someone else's health plan. About 23 percent stated they did not take the employer's offer because it was too costly. About 5 percent remained uninsured rather than take the offer.

The proportion of individuals covered by employment-based health insurance stood at 69.2 percent in 1987 (Enthoven and Fuchs 2006; Fronstin 1998); then, from 1987 to 2004, the percentage fell by 6.3 percentage points.[12] Increasing health care costs might have contributed to the decline in coverage (Holahan and Cook 2008) as firms tightened their requirements for workers' gaining coverage (Fronstin 2007a). In 2005, about 57 percent of workers were ineligible for insurance because they were employed part-time, about 18 percent were ineligible because they had not completed the required waiting period, and about 9 percent were ineligible because they were employed on a contract or temporary basis.[13]

Firms differed in their employment-based health insurance offers, eligibility, and acceptance, and these differences led to large disparities in coverage between low-wage and high-wage workers. Only 21.9 percent of households in the bottom fifth of household incomes had employment-based coverage, as compared to 86.4 percent of households in the top fifth in 2007 (Gould 2008). About 61 percent of workers in all firms were enrolled in the firm's insurance plan in 2009, compared to about 38 percent of workers in firms with a majority of low-wage workers—those earning at or below the twenty-fifth percentile of wages (Agency for Healthcare Research and Quality 2011). Coverage rates stood 34 percent higher for college-educated workers than for school-educated workers in 2007 (Gould 2008) and 47 percent higher for workers earning more than $15 per hour than for those earning less than $10 per hour (Collins et al. 2004). Even if both low-wage and high-wage workers received employment-based health insurance coverage, disparities existed in the quality of coverage received (Gabel et al. 2006).

**Piecemeal Responses**

Inefficiencies, the state of public health, and lack of health care access for all Americans periodically sparked heated policy debates, which culminated in the passage of the ACA. The debates were decades old, however. Both Congress and each president since Nixon attempted to curb health care expenditures and streamline coverage, albeit using different means to achieve the goals. Changing health care policy at the federal level, however, proved complicated. Complications arose in part because much of the regulation of health insurance fell under the jurisdiction of states, albeit within a system of overlapping state and federal requirements for health care coverage arrangements. Three pieces of legislation—the Employee Retirement Income Security Act (ERISA) of 1974, the Health Insurance Portability and Accountability Act (HIPAA) of 1996, and the Internal Revenue Code (IRC) of 1986—were the most prominent laws to regulate health care at the federal level.

ERISA applied to virtually all private-sector, non-church-based employment benefit plans (Copeland and Pierron 1998; Kaiser Family Foundation 2008b)[14] and structured the regulation of such plans into a two-tiered system in which federal and state laws played important

roles.[15] The federal level regulated reporting and information disclosure, claims appeal procedures, fiduciary standards, and remedies for wrongfully denied benefits. This federal regulation included an amendment by the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), which addressed discontinuity in health care coverage that occurred with job loss. Prior to COBRA, a job loss often meant a loss of insurance because of insurance being tied to employment in the firm. The lack of portability of insurance from job to job often left workers locked into their jobs for fear of losing insurance. COBRA generally allowed workers and their families the opportunity to continue their health benefits for limited periods of time (18 months for workers and 36 months for dependents in certain situations in 2010) if they lost their group health benefits; however, it generally required recipients to pay up to 102 percent of the cost of the plan, after tax, to continue coverage.[16]

States regulated the content of insurance contracts, licensed entities that offered private health coverage, and established laws that controlled the legal structure of insurers as well as their finances and their obligations to those covered under the policy. States set standards for managed care and network arrangements, regulated the adequacy of the services under these arrangements, reviewed practices, oversaw the credentialing of participating health care providers, and set quality assessment and improvement measures.

In addition, most states enacted laws that did four things: 1) required the state-licensed organizations insuring health to provide coverage to small employers, 2) placed limits on the rates that could be charged (e.g., restrictions on the characteristics—such as age and health status—upon which premiums can vary), 3) addressed the ability to restrict coverage to people with preexisting health problems, and 4) required coverage for certain "mandated" benefits or services (e.g., mental health services, substance abuse treatment, and breast reconstruction following mastectomy).

HIPAA and related standards addressed the issues of access to coverage, renewability, nondiscrimination, and mandated benefits. HIPAA is best known for requiring insurers to limit preexisting-condition exclusions for workers changing jobs and for prohibiting discrimination against employees and dependents based on their health status.

Perhaps the best-known IRC regulation governing health care is the provision for preferential tax treatment of health benefits (Fronstin

2006). By requiring employers to pay payroll taxes on wages and salaries but not health (and other) benefits, and by requiring individuals to pay income taxes on wages but not health benefits received as compensation, this provision gave both firms and workers an incentive to structure compensation with health benefits.

## THE AFFORDABLE CARE ACT (ACA)

Such was the environment when the final revisions to the ACA were signed into law on March 30, 2010. The 14-month deliberations on the legislation saw discussions frequently focusing on whether the United States should adopt a government-operated or government-funded health care system. The ACA ended this debate by firmly grounding reform in the existing tripartite system, albeit a version of the system in which existing health insurance programs will likely be substantially modified and integrated into newly created programs. Furthermore, because the ACA addressed many issues set at the state level, states must analyze how their laws fit with the new federal requirements and decide whether to continue, add to, or eliminate their state requirements.

The ACA built structures to achieve three goals: 1) increase access to health care and reduce the number of uninsured, 2) increase the quality of health care, and 3) fight rising health care costs. Some provisions took effect immediately, while others unfolded (or are yet unfolding) over time.[17] Most, but not all, provisions will be put into place by 2014. Table 1.1 provides a timeline for implementing key provisions in each category and is more inclusive of the bill's various provisions than the discussion that follows. The Congressional Budget Office (CBO) placed the net cost of the ACA at $938 billion over 10 years, as noted in a March 20, 2010, letter from CBO Director Douglas Elmendorf to House Speaker Nancy Pelosi.[18] It will be financed through the projected savings from Medicaid and Medicare (discussed below) and new taxes and fees, including an excise tax on high-cost insurance.

The structures conceived to achieve these goals were designed to allow individuals to access different sources of coverage at different life-cycle stages or at different levels of income. One important piece of reform of the private market consists of the new state-established enti-

ties called American Health Benefit Exchanges (exchanges). (Jost 2010 provides discussion.) The exchanges are structured to allow individuals and businesses—primarily small businesses—to select coverage through a variety of plans within one of the state-run exchanges.[19] Private insurance companies will be able to administer both managed care and fee-for-services plans at one of four levels of cost-sharing in the exchange. Bronze-level plans are defined to cover at least 60 percent of the actuarial value of the covered benefits, silver-level ones to cover at least 70 percent, gold-level plans to cover 80 percent, and platinum-level plans to cover 90 percent. The exchanges were also structured to serve as the mechanism by which small firms receive tax credits for premiums, large firms are assessed penalties for not meeting the ACA requirements, and individuals obtain premium or cost-sharing credits.

**Access**

The ACA designed provisions for firms, the government, individuals, and insurers to share responsibility for expanding access to health care. Large employers are required to provide full-time workers and their dependents with affordable insurance within 90 days of their employment or face potential financial penalties. In addition, firms must automatically enroll employees into their lowest-cost premium plan unless the workers opt out of coverage, which makes it easier for individuals to enroll in employment-based health insurance. The government role will likely expand Medicaid by creating a uniform minimum eligibility threshold and covering all individuals under age 65 with incomes up to 133 percent of the federal poverty level. Most U.S. citizens and legal residents will be required to have coverage from one of three sources—a government plan, one of the exchanges, or an employer (Clarke, Keckley, and Kraus 2010)—or pay a financial penalty.[20] Insurers generally must provide coverage to those that apply for insurance. Insurers will not be allowed to charge higher premiums based on health status and gender; to deny coverage to people for any reason, including health status; or to rescind coverage, except in cases of fraud. Furthermore, young adults will be able to remain on their parents' health insurance until age 26.

The ACA designed the exchanges to be the vehicle that increases access to health care to low- and moderate-income individuals and

**Table 1.1 Timeline for ACA Implementation**

| | 2010 | 2011 |
|---|---|---|
| Access | • Young adults on parents' plan<br>• No exclusion on preexisting conditions for children<br>• No rescissions<br>• Preexisting condition insurance plan (PCIP)<br>• State potential to expand Medicaid eligibility<br>• Community health centers and National Health Service Corps<br>• Small business tax credits<br>• Rebates for Medicare Part D coverage gap<br>• Reinsurance for early retiree health benefits | • Discounts for Medicare Part D coverage gap |
| Quality | • Coverage of preventive care without cost-sharing<br>• No limits on lifetime benefits<br>• Restrictions on annual benefits | |
| Cost containment | • Premium increase review | • Limits on share of nonmedical costs in premiums<br>• Charges to Center for Medicare and Medicaid Innovation |
| Other | | • Employers report value of health benefits on W-2<br>• Increased tax on nonmedical distributions from health savings accounts (HSAs)<br>• Pharmaceutical manufacturer fee<br>• Reimbursement restrictions on over-the-counter drugs |

| 2012 | 2013 | 2014 | Beyond |
|---|---|---|---|
| • No major changes implemented in 2012 | | • No exclusion on health status or preexisting conditions<br>• Guaranteed availability and renewability of coverage<br>• New insurance rating rules<br>• Limits on wait periods<br>• American Health Benefit Exchanges<br>• Medicaid expansion<br>• Individual requirement for insurance<br>• Large-employer requirement to offer insurance or face penalties<br>• CHIP reauthorization<br>• Increase small-business tax credits<br>• Cost-sharing assistance and out-of-pocket limits<br>• Free-choice vouchers | • Phase-in of penalties for individuals not having insurance (2014–2016)<br>• Phase-out of Medicare Part D coverage gap (2020) |
| | | • Annual limits on benefits banned<br>• Medical home plans<br>• Market-based incentives<br>• Essential health benefits package | |
| | • Administrative simplification<br>• Health care choice compacts | • Multistate plans<br>• Independent payment advisory board<br>• Premium credits | • Health care compacts (2016) |
| | • Limits on contributions to flexible spending accounts (FSAs) | • Insurance industry fee | • Tax on high-cost plans (2018) |

NOTE: Commonwealth Fund (2010) provides an excellent abbreviated summary of most provisions included in the table. Not all changes are presented in the table. See http://www.healthcare.gov/law/timeline/ for a more complete listing.

families. Workers in large firms with incomes below 400 percent of the federal poverty level and with premium costs for employment-based health insurance above 8.0 to 9.8 percent of their income will receive a voucher from their firm for an exchange plan. Workers who are offered employment-based health insurance, but with a premium contribution that exceeds 9.5 percent of their household income or with an actuarial value of less than 60 percent, will receive premium and cost-sharing credits in the exchange.[21] Individuals without access to employment-based health insurance will likely receive cost-sharing payments for deductibles and copayments if their income is below 250 percent of the federal poverty level and will likely receive premium credits in the exchanges and if their income lies between 133 and 400 percent of the federal poverty level.[22]

The CBO estimates that the ACA will reduce the number of uninsured by 32 million by 2019 (CBO 2009). It projects that about 24 million people will obtain coverage in the exchanges, some of whom will move from the individual market. It estimates that about 16 million more people will enroll in Medicaid and CHIP through expanded eligibility. Beyond the CBO, a wide variation exists in estimates, however. For example, predictions range from a decrease of 22.3 percent (Holtz-Eakin and Smith 2010) to an increase of 8.7 percent (Eibner, Hussey, and Girosi 2010) in employment-based coverage.

**Quality of the Plan**

Several provisions of the ACA are designed to improve the quality of the insurance plan. Some provisions require plans to increase their quality while containing costs. All health plans sold in the exchanges and the individual and small-group markets are required to offer an essential benefit package of services, which will be determined by a benefits committee headed by the surgeon general.[23] All *new* health plans must provide comprehensive coverage, including a minimum set of services, caps on annual out-of-pocket spending, no cost-sharing for preventive services, and no annual or lifetime limits on the dollar value of essential health benefits coverage. Furthermore, the ACA restricts the use of catastrophic, high-deductible policies—plans that have low premiums but high deductibles for incurring health care expenses. Such plans will only be available for persons under age 30 who cannot other-

wise find affordable coverage, or those who would suffer a hardship in buying other coverage.

**Cost Containment**

The ACA designed several provisions to contain costs and increase efficiency in delivering health care in private markets. These include the following four: 1) an annual review of premium increases that requires plans to justify increases; 2) state reporting on trends in premium increases, with potential exclusion from the exchanges for unjustified premium increases; 3) rebates to enrollees if a firm's health plan spends less than 80 (small-group market) or 85 (large-group market) percent of the premium on medical care; and 4) competition in private markets as states form health-care-choice compacts to enable insurers to sell policies in any state that participates in the compact.

Costs are designed to be contained in government health care plans in several ways. First, the ACA targets waste, fraud, and abuse in public programs with provider screening and enhanced oversight for new providers and suppliers, enrollment moratoriums in public programs identified as being at elevated risk of fraud, and compliance programs for Medicare and Medicaid. Second, the ACA charges the Center for Medicare and Medicaid Innovation with testing new payment methods and health care delivery systems that reduce cost and improve the quality of care delivered under Medicare, Medicaid, and CHIP. Finally, the legislation requires an Independent Payment Advisory Board to submit legislative proposals to reduce the per capita rate of growth in Medicare spending should spending exceed a target growth rate.[24]

How likely are these provisions to contain costs for receiving health care? The CBO (2009) examined changes in both premiums and administrative costs when it addressed this question. Its estimates suggest that small-firm premiums might remain the same in 2016 as under current law, although the small-business tax credit might reduce premiums by 8 to 11 percent for eligible firms. Premiums for individuals in the exchanges might increase by 10 to 13 percent with the more comprehensive coverage in the essential benefit package and mandated lower out-of-pocket costs. Premium subsidies might reduce the prereform premium payments by 56 to 59 percent for up to 57 percent of individuals in the exchange. Estimates of premium changes do not consider the

possibility for adverse selection in the exchanges. The CBO estimates suggest that administrative costs might reduce premiums between 1 and 4 percent for small firms but provide no savings for large ones. Health care leaders and health care policy experts believe provisions like those in the ACA could substantially reduce administrative costs (Stremikis, Davis, and Audet 2010)—by about $27 billion—resulting in a slowing in national health expenditures from 6.3 percent to 5.7 percent annually (Cutler, Davis, and Stremikis 2010).

## MY RESEARCH AND DATA

It will be well into the 21st century before the ACA can be assessed. Until then, its potential influence can only be predicted by making assumptions about behavior. This research examines the behaviors of firms with respect to their provision of health care prior to the ACA deliberations and uses those behaviors to assess changes in employer-sponsored health insurance (ESI) that might occur once the ACA is fully implemented. I focus on ESI because the ACA retained it as the cornerstone of health care coverage for individuals under age 65. As a result, a change in firms' behavior with respect to health care provision could have a dramatic impact on coverage after reforms are in place.

My analysis focuses on potential changes in the ESI offer with respect to its access and quality after the ACA is implemented. My discussion highlights changes to the disparities in ESI that might occur after the ACA is fully implemented. Because the ACA structured provisions to narrow gaps in the ESI offer, my research can shed light on the extent to which the ACA provisions might change the ESI offer, and whether the changes are likely to reduce disparities between low-wage and high-wage workers.

My research is grounded in the analysis of the California Health and Employment Survey (CHES) data. The CHES surveyed a cross section of 1,427 private sector firms with five or more workers and a 67 percent response rate. It telephoned firms from June 2005 through December 2006 about their benefits, characteristics of the typical health plan, and the workforce. The CHES used proportionate random sampling of firms within the 27 northern Californian counties selected for surveying and

oversampled large firms so as to allow stratification in analysis by firm size. A large firm was defined as one with 51 or more employees in the entity that set health benefits, which is consistent with the ACA definition of a large firm as one with 50 or more full-time employees.

Of primary importance for this research was the timing of its fielding. Active discussions on the ACA had not yet begun. The economy was relatively stable, and it was well before the Great Recession, which started in December 2007. Health insurance premiums had far outstripped workers' earnings and inflation prior to its fielding (Figure 1.1). During the five-year period before the fielding of the CHES, health insurance premiums had increased about 8 to 10 percent per year, compared to a 3 to 4 percent annual increase in prices and earnings. The period was therefore one in which firms were highly focused on health care and health care costs. Such an environment is likely to approximate the environment that exists during the period in which the major provisions of the ACA are implemented.

The CHES sample was designed to approximate the distribution of firms throughout the United States. The counties in which the CHES was fielded were selected to approximate the mix of urban and rural counties in the United States (ERS 2004), and weights were developed to apportion CHES firms to the distribution of U.S. firms with respect to size and industry. Still, California is more urban than the rest of the United States, leaving the distribution of CHES counties with a greater percentage of metropolitan population (89.5) than that of the United States (82.6) (Table 1.2).

The oversampling of large firms and the sampling frame that excludes firms with fewer than five employees leaves the distribution of U.S. firms more heavily weighted with firms of fewer than 10 workers than the distribution of CHES firms. It also leaves the distribution of CHES firms more heavily weighted toward firms of more than 50 workers than the distribution of U.S. firms, although the firm-based weights better apportion the CHES firms (Table 1.3) and the weighted sample of CHES firms closely approximates the industrial and size distribution of U.S. firms (Table 1.4).[25] Weighted analysis better allows for study findings to be extrapolated to the 90 percent of U.S. firms with five or more workers (U.S. Census Bureau 2009).[26]

**Table 1.2 Distribution of Population in the United States and in the California Health and Employment Surveys (CHES)**

| | Percent population distribution, 2000 | | Numeric population distribution, 2000 | |
|---|---|---|---|---|
| | U.S. | CHES | U.S. | CHES |
| Metropolitan county in a metropolitan area of: | | | | |
| 1 million population or more | 53.0 | 65.5 | 149,224,067 | 4,123,740 |
| 250,000 to 1 million population | 19.7 | 16.1 | 55,514,159 | 1,010,595 |
| Fewer than 250,000 population | 9.9 | 7.9 | 27,841,714 | 496,919 |
| Total metropolitan | 82.6 | 89.5 | 232,579,940 | 5,631,254 |
| Nonmetropolitan county with an urban population of: | | | | |
| 20,000 or more, adjacent to a metropolitan area | 5.1 | 4.1 | 14,442,161 | 255,114 |
| 20,000 or more, not adjacent to a metropolitan area | 2.0 | 2.0 | 5,573,273 | 126,518 |
| 2,500–19,999, adjacent to a metropolitan area | 5.4 | 2.6 | 15,134,357 | 164,188 |
| 2,500–19,999, not adjacent to a metropolitan area | 3.0 | 1.3 | 8,463,700 | 84,661 |
| Fewer than 2,500, adjacent to a metropolitan area | 0.9 | 0.5 | 2,425,743 | 31,360 |
| Fewer than 2,500, not adjacent to a metropolitan area | 1.0 | 0.0 | 2,802,732 | 0 |
| Total nonmetropolitan | 17.4 | 10.5 | 48,841,966 | 661,841 |
| Total, metropolitan and nonmetropolitan | 100.0 | 100.0 | 281,421,906 | 6,293,095 |

NOTE: Population estimates are as of April 1, 2000. Santa Cruz County was not included as a CHES county even though one survey was completed for a firm with a mailing address in that county.

SOURCE: ERS (2004) for the construction of counties into "metropolitan" and "nonmetropolitan"; U.S. Census Bureau (2006b) for the population distributions.

## STRUCTURE OF THE BOOK

Each of the remaining chapters in the book tackles a particular aspect of ESI and the ACA, and each chapter is structured to build evidence in answering questions about how the ACA might alter ESI and affect the disparities in it between low-wage and high-wage workers.

Chapter 2 provides a backdrop for the study by mapping the historical link between health coverage and firms and presenting a framework for a firm's decision making in offering ESI. This framework structures my analysis of the incentives for a firm to offer ESI when changes occur in the health care market, as they will under the ACA. The chapter also describes how the CHES data are used to examine firm behavior and answer the research questions that guide this study.

Chapter 3 focuses on access to and quality of the ESI offer in the years prior to ACA deliberations. By examining which workers had access to ESI and the quality of the ESI offer (types of plans offered and premiums the workers pay), the chapter highlights the disparities in access to and quality of the ESI offer. Analysis presented in the chapter shows that workers in low-skilled firms have a lower probability of receiving an ESI offer than workers in high-skilled firms. Their lowered probability stems from two sources: 1) the firm is less likely to make an offer, and 2) the firm is more likely to put tighter eligibility restrictions on an offer if one is made. Analysis also shows a lower quality of offer extended in low-skilled firms than in high-skilled firms with respect to the proportion of the premium the firm pays and the choices offered to workers in types of plans.

Chapter 4 focuses on how large firms might respond to the ACA's requirement to offer ESI or face potential penalties and its potential to increase ESI costs. Analysis of CHES data suggests that the prereform disparities in ESI coverage and quality of the offer between low- and high-skilled firms might lessen with implementation of the ACA but disparities in access to other benefits might become larger. ESI coverage and access might converge as a greater proportion of firms with a majority of low-skilled workers increase their coverage to meet the ACA's requirement and as firms with a majority of high-skilled workers reduce the quality of their ESI offer in response to increased health care costs. Consequently, both coverage and quality of the ESI offer in

**Table 1.3 Proportion of CHES Firms in Various Size Categories, Unweighted and Weighted**

| | Unweighted | | Weighted |
|---|---|---|---|
| | *n* | % | % |
| Size (number of workers) | | | |
| 5–20 | 475 | 33.3 | 65.2 |
| 21–50 | 227 | 15.9 | 20.8 |
| 51–299 | 436 | 30.6 | 8.6 |
| 300+ | 289 | 20.3 | 5.4 |
| Detailed size categories | | | |
| 5–9 | 243 | 17.0 | 34.3 |
| 10–19 | 232 | 16.3 | 30.9 |
| 20–50 | 227 | 15.9 | 20.8 |
| 51–99 | 226 | 15.8 | 3.9 |
| 100–299 | 210 | 14.7 | 4.6 |
| 300–499 | 62 | 4.3 | 1.0 |
| 500–999 | 61 | 4.3 | 1.7 |
| 1,000–4,999 | 51 | 3.6 | 0.8 |
| 5,000–9,999 | 60 | 4.2 | 1.1 |
| 10,000+ | 55 | 3.9 | 0.8 |
| *N* | 1,427 | | |

NOTE: Columns show the percentage of firms falling into each category. "Weighted" means observations were weighted so that the distribution of sample firms reflects the distribution of firms in the United States with respect to size and industry. Columns may not sum to 100.0% because of rounding.
SOURCE: CHES (Maxwell 2007).

large firms is likely to converge between low- and high-wage workers. This ESI convergence might be accompanied by a divergence in the offer of other benefits. CHES data suggest that large firms with a majority of high-skilled workers not only offered significantly more non-health-care benefits to workers in the prereform period but also were less likely to decrease these benefits than other firms when health care costs increased. As a result, the level of other benefits offered to low-wage and high-wage workers might become increasingly disparate if the ACA increases health care costs.

Chapter 5 focuses on how small firms might respond to the changes that the ACA brings. It examines the potential of the exchanges and tax credits to incentivize small firms that do not offer ESI to offer it

**Table 1.4 Industry Classification of Firms in the United States, of Firms in Counties Covered by the CHES, and of Firms Responding to the CHES**

| | United States (2003) | CHES counties (2003) | CHES firms (2005–2006) |
|---|---|---|---|
| Total | 7,601,160 | 168,420 | 1,427 |
| Industry | | | |
| % retail trade | 14.7 | 13.0 | 18.2 |
| % professional, scientific, technical services, and management of companies and enterprises | 11.7 | 14.0 | 8.3 |
| % construction | 10.6 | 9.7 | 8.0 |
| % other services (except public administration) | 9.7 | 8.6 | 8.5 |
| % health care and social assistance | 10.0 | 10.9 | 11.5 |
| % accommodation and food services | 8.1 | 9.2 | 11.1 |
| % finance and insurance | 6.5 | 6.5 | 5.9 |
| % wholesale trade | 5.7 | 5.4 | 6.2 |
| % administrative support and waste management and remediation services | 5.0 | 4.8 | 4.5 |
| % manufacturing | 4.4 | 3.9 | 6.7 |
| % real estate and rental and leasing | 5.0 | 5.7 | 3.0 |
| % transportation and warehousing | 2.8 | 2.4 | 2.7 |
| % information | 1.9 | 2.2 | 2.1 |
| % arts, entertainment, and recreation | 1.6 | 1.5 | 1.4 |
| % educational services | 1.1 | 1.3 | 1.2 |
| % forestry, fishing, hunting, and agricultural support | 0.3 | 0.4 | 0.3 |
| % mining | 0.3 | 0.1 | 0.0 |
| % utilities | 0.2 | 0.1 | 0.3 |
| % unclassified | 0.4 | 0.4 | 0.0 |
| Size (no. of workers in the establishment) | | | |
| Fewer than 50 (51) | 94.6 | 94.8 | 90.4 |
| % 1–4 | 54.4 | 54.6 | 2.0 |
| % 5–9 | 18.8 | 18.7 | 39.7 |
| % 10–19 | 12.7 | 12.6 | 31.9 |
| % 20–49 (20–50) | 8.7 | 8.9 | 16.8 |
| % 50–99 (51–99) | 3.0 | 3.0 | 4.8 |

*(continued)*

**Table 1.4 (continued)**

| | United States (2003) | CHES counties (2003) | CHES firms (2005–2006) |
|---|---|---|---|
| Size (no. of workers in the establishment) | | | |
| % 100–249 (100–299) | 1.7 | 1.6 | 3.1 |
| % 250–499 (300–499) | 0.4 | 0.4 | 0.4 |
| % 500–999 | 0.2 | 0.1 | 0.9 |
| % 1,000 or more | 0.1 | 0.1 | 0.4 |

NOTE: Census industry classification is based on NAICS codes, while CHES industry is based on 1987 SIC codes. A crosswalk linked the two. When firm size categories differ between the census and CHES databases, numbers in parentheses indicate a CHES-defined category. Numbers reflect the number of workers in the establishment, consistent with census reporting. CHES observations are weighted so that the distribution of sample firms reflects the distribution of firms in the United States with respect to size and industry. Columns may not sum to 100.0% because of rounding.

SOURCE: United States and CHES counties from U.S. Census Bureau (2006a); CHES firms from Maxwell (2007).

and the potential consequences that would accompany ACA-induced cost increases for small firms that offered ESI in the prereform period. Although between one-fifth and one-third of small firms not offering ESI indicated an interest in offering it, and although a relatively large percentage of small firms cited financial difficulties and administrative burdens as reasons for not offering ESI (areas the tax credits and exchanges were designed to address), my analysis suggests that the ACA might not be successful in inducing them to offer ESI. Only about 16 percent of small firms said that not offering ESI produced negative consequences, which indicates that a relatively large percentage perceive few benefits to offering it and raises questions about whether the ACA's incentives go far enough to induce small firms to change their behavior. Furthermore, the ACA's tax credits are designed only for very small, low-wage firms, and CHES data suggest that only about 8 percent of all small firms and 31 percent of small firms not offering health benefits will be eligible for them.

Increasing health care costs might have the same influence on small as on large firms in increasing the disparity in other benefits offered at low- and high-skilled firms; however, the effect on the ESI offer might

differ. My analysis suggests that few differences existed in small firms as to the quality of the ESI offer between low- and high-skilled firms (other than choice of plans) in the prereform period and shows no indication that this parity would change should the ACA increase health care costs. Thus, the ACA might continue the similarity in ESI offers in small firms but create a divergence in other benefits offered.

Chapter 6 provides a summary of the research and draws attention to the potential consequences, anticipated and unanticipated, that the ACA might have for ESI and other forms of compensation as it refocuses the question individuals face in health care choices from "Do I qualify for any of the three ways of obtaining health insurance?" to "Which source of health care coverage best meets my needs?"

## Notes

1. Numbers are from the Kaiser Family Foundation survey of a random sample of 2,003 adults aged 18 or older.
2. Six firms (0.4 percent) had three to four employees at all locations, and 17 (1.2 percent) had three to four employees in the local establishment. These firms were included in our analysis, although few differences existed with their exclusion.
3. The survey took 10 to 15 minutes to administer, and the targeted respondent was "the person with knowledge about benefits and jobs" at the establishment. Appendix A provides a copy of the survey. The sampling frame for CHES was establishments, and only one establishment in a firm was included. We discuss the data as if the firm was the unit of analysis because only 62 establishments of the 706 firms that were multi-establishment firms (representing 49.5 percent of the total number of firms) reported setting their own benefits. These 62 firms represented 4.3 percent of the total number of firms.
4. Fox and Fronstin (2000) argue that such numbers understate public expenditures because they do not include the tax break on health insurance and health spending that workers enjoy.
5. Tricare was the Department of Defense's health care program for members of the uniformed services, their families and survivors, and retired service members. CHAMPVA (Civilian Health and Medical Program from the Department of Veterans Affairs) provided health care benefits to disabled dependents of veterans and certain survivors of veterans.
6. Medicaid covered non-Medicare costs and long-term costs such as nursing homes for the disabled, which accounted for nearly two-thirds of the program costs despite nursing-home disabled making up only 25 percent of the recipients (Gruber 2003).
7. Most low-income children qualified for Medicaid or CHIP, but low-income adults under age 65 qualified for Medicaid only if they were disabled, pregnant, or had dependent children.

8. Other health care "plans" were programs designed to help individuals set aside funds for medical expenses (Davis, Doty, and Ho 2005). The Revenue Act of 1978 created flexible spending accounts (FSA) and allowed employees to contribute pretax dollars from paychecks to an account used during the same calendar year to meet cost-sharing requirements or payments for services not covered. Employers created health reimbursement arrangements (HRA) to allow employees to use funds for health care services not covered by health insurance. Monies typically remain after the end of the year, but these funds expire if employees leave the firm. Tax-advantaged health savings accounts (HSA) were made available to individuals enrolled in a high-deductible plan (HDP) to offset medical expenses before the deductible.
9. Fee-for-service coverage included basic and major medical coverage. Basic coverage paid for (at least part of) a hospital room and care; some hospital services and supplies (e.g., X-rays, prescribed medicine); cost of surgery, wherever performed; and some doctor visits. Major medical took over when basic coverage ended and covered the cost of long, high-cost illnesses or injuries. "Comprehensive plan" policies combined both coverages into one plan.
10. HMOs were generally grounded in one of four models (Kaiser Family Foundation 2006). The staff-model HMO directly employed health care providers who provide care exclusively to HMO enrollees. The group-model HMO contracted with one or more group practices for health care services, and each group primarily treated the HMO enrollees. The Independent Practice Association (IPA) HMO contracted with physicians or associations of physicians in solo practice for health care services to enrollees and patients who were not HMO enrollees. The network-model HMO contracted with one or more group practices or IPAs for health care services, but the network could provide care to patients outside the HMO. Some HMOs combined the four basic model types in a mixed-model HMO.
11. The reason for declining coverage was indeterminate for about 14 percent of workers (Fronstin 2007b).
12. Part of the decline is accounted for by individuals who transferred to public and nongroup insurance. Between 2000 and 2006, the percentage of individuals covered by Medicaid or state funds increased from 8.8 to 11.3, the percentage covered by Tricare or Medicare increased from 2.1 to 2.3, and the percentage covered by private nongroup insurance increased from 5.1 to 5.6.
13. Ineligibility could not be determined for about 15.5 percent of workers.
14. Third-party benefit plans are directly regulated at the federal level and indirectly regulated at the state level. Self-funded plans are exclusively regulated at the federal level. The difference between federal and state regulation lies in the distinction between the terms "health benefit plan" and "health plan." The health benefit plan is one of many employee benefit plans that an employer or union can offer and is governed by ERISA. A health plan is the content of the health benefit plan that is offered and, if it is offered as an insured product (e.g., health insurance), is regulated by states.
15. ERISA's "savings" clause, sec. 514(b)(2)(A), reinforced the states' authority to regulate insurance, and its "deemer" clause, sec. 514(b)(2)(B), prevented states

from deeming nonpension benefit plans (e.g., self-funded health insurance) to be in the business of insurance, so that states could regulate them.

16. COBRA only covers health plans sponsored by employers with 20 or more employees in the previous year and is available only under certain circumstances.
17. The Kaiser Family Foundation (2010b) and the Commonwealth Fund (2010) provide extensive summaries. The U.S. Department of Health and Human Services was charged with interpreting and implementing the ACA's many major provisions and has established a Web site (http://www.healthcare.gov) to communicate the on-the-ground provisions of the act to individuals and employers.
18. The CBO estimated the potential effects of the November 2009 Senate bill, which differed slightly from the legislation ultimately passed in March; however, the effects are likely be very similar (Collins et al. 2010).
19. Although the ACA favors state-run exchanges, it confers authority to create both a federal exchange and a multistate insurance program, and it provides for the possibility of regional exchanges (Jost 2010). The structure of the exchanges is unknown at the time of the writing of this book.
20. Penalties for noncompliance cannot exceed the national average premium for bronze-level plans offered in the exchanges. Individuals who do not earn enough to pay income tax or who would spend more than 8 percent of their annual income on coverage would be exempt from the requirement to have coverage. Members of Native American tribes, individuals not lawfully present in the United States, religious objectors, and incarcerated populations would also be exempt. (Chaikind and Peterson [2010] provide a discussion.)
21. The maximum percentage of workers that would be required to pay ranges from 2.0 (133–150 percent of poverty) to 9.5 percent (300–400 percent of poverty). Premium credits pay for the premium of the silver plan in the exchange. They are delivered as a tax credit, irrespective of whether taxes are filed, and are paid in advance directly to the insurer that the individual chooses. Peterson and Gabe (2010) provide a discussion.
22. Legal immigrants are also eligible for credits if they are ineligible for Medicaid because they have lived in the United States for less than five years and have incomes below 133 percent of the poverty line.
23. Essential health benefits include ambulatory services, emergency services, hospitalization, maternity/newborn care, mental health/substance abuse, prescription drugs, rehabilitative and habilitative services and devices, laboratory services, preventive and wellness/chronic disease management, and pediatric services including oral and vision.
24. Proposals cannot include provisions that would ration care; increase revenues; or change benefits, eligibility, or Medicare beneficiary cost-sharing.
25. Weights were developed by dividing the percentage of U.S. firms in the county business pattern (CBP) data (U.S. Census Bureau 2006a) by the percentage of CHES firms within each two-digit, three-size category of industry: 5–19 employees; 20–50 (CHES) or 20–49 (CBP); and 51+ (CHES) or 50+ (CBP). Categories were combined if one contained fewer than 15 CHES firms.

26. The CHES contains a slightly higher percentage of firms in retail trade (about 5.0 percentage points), manufacturing (about 2.5 percentage points), and accommodation and food services (about 2.5 percentage points) than the United States and a slightly lower percentage of firms in the professional and management sector (about 5.0 percentage points) and in real estate and leasing (about 2.5 percentage points). More dramatic differences exist by firm size, however—even when weights are applied. Because CHES generally eliminated firms with fewer than five workers from the surveying, about 55 percent of the firms were ineligible for participating in CHES surveying because they were too small. As a result, 94.5 percent of firms in the United States and in CHES counties had fewer than 50 workers in 2000, but only 90.4 percent of the CHES-weighted sample have 50 or fewer workers.

# 2
# Employer-Sponsored Health Insurance

Many of the problems in health care access and coverage can, arguably, be traced to the century-old marriage between health care access and employment—an arrangement that is uniquely American.[1] At the turn of the twentieth century, a time that was prior to this marriage, the problems in health care were quite different from the ones that were present 100 years later, at the turn of the twenty-first century. Although the United States had a relatively high physician-to-population ratio and the population had easy access to physicians, the quality of care was mixed. The 1910 Flexner Report addressed the quality-of-care issue and surveyed the state of medical education in the United States and Canada. It concluded that American medical schools should increase their standards and adhere to the protocols of mainstream science. The Rockefeller Foundation supported the report's conclusions and distributed about $78 million among 24 university-based medical schools so that they could adopt the recommended changes. Because the Association of American Medical Colleges and the American Medical Association (AMA) formally embraced the suggested changes, the Flexner standards ultimately served as the basis for accrediting medical schools. At about the same time, states established licensing requirements for physicians, and many of these requirements specified that the physician must have studied at a school offering a curriculum adhering to AMA guidelines.

The consequences of medical-school accreditation and state licensing of physicians could easily have been predicted by any first-year economics student: the supply of physicians fell, and the price of medical care increased. The ratio of physicians per 100,000 population fell from 158 in 1906 to 126 in 1931, and the number of graduates from medical schools fell from 5,747 in 1904 to 3,047 in 1920. By the 1930s, the reduced supply of physicians made it difficult for rural communities to attract physicians, while the increased cost of medical care often left hospitals unable to collect payments for services rendered. Justin Ford

Kimble, a hospital administrator at Baylor University's Baylor Hospital in Dallas (now Baylor University Medical Center), devised a plan in 1929 that would alleviate both problems by making employers an intermediary for medical care provision. His idea was to collect "insurance premiums" from employee groups and guarantee hospital services to members of the group subscribing to the arrangement. With employers collecting the payments, hospitals could lower marketing and enrollment expenses and rural areas could attract physicians by ensuring that there would be sufficient demand for their services.

Kimble's timing in positioning employers as intermediaries for medical-care provision could not have been better. The Great Depression of the 1930s had exacerbated the need for prepaid arrangements, as medical bills went unpaid and hospital beds stood empty.[2] Hospitals and health care coalitions (e.g., Blue Cross Group Hospital Insurance, which Kimball originated) developed systems that linked a group of subscribers to a group of hospitals and physicians, and states provided such associations with preferential tax treatment if they used a lower-priced "community rating" instead of individual pricing.[3] The emerging system started to suffer from adverse selection, however, as community-rated plans became less expensive than individually priced plans for the unhealthy but more expensive than individually priced plans for the healthy. In response, hospital associations developed lower-cost plans for groups in which the risk for service was not skewed toward the unhealthy. These group plans dovetailed nicely into Kimble's idea of employer intermediaries.

The marriage between employment and health care access thrived during World War II, as federally legislated wage and price controls constrained wage increases but not necessarily benefit increases. Because wage controls limited a firm's ability to increase wages, market conditions created strong incentives for firms to initiate or expand health insurance plans as a way to increase a worker's compensation. Workers accepted such plans as compensation, in part because the premiums the firms paid on their behalf were not subject to income taxation. These tax incentives remained after wage controls were lifted, and the explosion in employment-based group health insurance plans continued.

Not all individuals benefited from the marriage between health care access and employment. Retirees and others without a relationship to the labor market were left out of the system, and low-wage workers

often were better off substituting additional wages for health insurance. Concern for these individuals did not go unnoticed. In 1937 the AMA "Committee of 430," a body of 430 internationally known physicians, articulated four principles for health care in the United States. One of these principles argued that providing adequate medical coverage for the economically needy might require different thinking. In 1965, through passage of the Social Security Act, Medicare addressed concerns about medical care for the elderly, and Medicaid addressed concerns about such care for the indigent. Concerns about low-wage workers remained largely unaddressed until the Affordable Care Act (ACA) in 2010 created the exchanges.

This chapter provides a benefit-cost framework to assess three things: 1) the incentives for firms to offer employer-sponsored insurance (ESI), 2) the advantages and disadvantages different types of firms face when offering it, and 3) the change that might occur in a firm's ESI offer once the ACA takes effect. The chapter also highlights the distinctive ability of the California Health and Employment Surveys (CHES) data to allow researchers to empirically examine a firm's behavior in the years preceding the ACA deliberations and to extrapolate from that behavior in order to predict how the ESI offer might change once the ACA becomes fully implemented.

The uniqueness of the CHES data allows us to build upon the nascent studies on predicted changes in ESI that will come with the ACA. Some such studies have surveyed employers and asked them to describe changes they might make in response to the legislation. The survey results suggest that between 50 and 60 percent of employers might pursue alternatives to ESI as they evaluate the opportunities and risks that arise when the ACA's major provisions become effective (Singhal, Stueland, and Ungerman 2011). Other studies have used computer algorithms to model current behavior and simulate changes that might occur under ACA-like conditions; these studies suggest that there will be a much smaller degree of change (Eibner, Husssey, and Girosi 2010; Garrett and Buettgens 2011). The CHES data provide an opportunity to use an approach somewhere between these two by employing statistical analysis to explain prereform behavior and to extrapolate this behavior into the future.

## THE COSTS AND BENEFITS OF OFFERING ESI

Whether a firm offers health insurance depends on how it perceives the costs and benefits of replacing some portion of wage compensation with ESI.[4] Although the relative costs and benefits of this action—and the portion of wage compensation replaced—will vary for each organization, it is possible to outline the general types of costs a firm bears in making an ESI offer and the categories of benefits it might receive from doing so. The costs that firms consider when making an ESI offer generally fall into four categories: 1) premiums, 2) administrative costs, 3) quality of the ESI plan and offer, and 4) access to the offer.[5] Premiums, administrative costs, and quality all determine the per-employee cost of offering ESI, while access to the offer determines a firm's overall expenditures in making the offer.

Per-employee premium payments form the largest cost a firms bears when it offers ESI, and the size of this payment is closely linked to firm size. Insurers set lower premiums for larger groups because large groups are more likely to approximate a random sampling of the population. As a result, they are more likely to be actuarially sound—in other words, they have a lower probability of adverse selection and have predictable and relatively stable costs of health care over time. Because smaller groups are less likely to approximate a random sampling of the population, insurers often use medical underwriting (i.e., screening and evaluation based on health risks) to rate them individually, in much the same way as they do for individuals in the nongroup market. Thus, while premiums in the group market are lower than those in the nongroup market, the small-group market faces higher premiums and greater variability in premiums than the large-group market, as is consistent with the potential for greater adverse selection in small firms (Cutler 1994).[6]

Per-worker administrative costs for ESI also fall as firm size increases, since the firm benefits from both externally and internally created economies of scale. *External* economies of scale arise because insurers face higher administrative costs with smaller firms. Smaller firms have an increased likelihood of adding or dropping coverage, going out of business, and having worker turnover (Williams and Lee 2002), all of which create administrative costs for the insurer. Insurers

also benefit from reduced communication costs with a larger firm, as they only have to contact a single individual or department for claims processing and benefits administration. *Internal* economies of scale arise with declining administrative costs associated with less expensive and more competent governance structures in larger firms (Williamson 1975) and with personnel who specialize in purchasing and administering health benefits. Together, the external and internal economies of scale mean that administrative costs consume nearly 40 percent of every premium dollar for firms with one to four employees, but only about 5.5 percent of every premium dollar for employers with 10,000 or more employees (Yegian 1999).

The price of ESI for firms is set in accordance with the ultimate quality of the health care a worker receives. ESI quality has at least two dimensions, which we define as 1) quality of the plan and 2) quality of the offer. Both components affect the price of insurance. We use the term "quality of the plan" to describe the type and level of services included in the coverage. Offering a plan with expansive service coverages increases the plan's quality (and cost) over offering one with restrictive coverages. The ACA directly regulates the quality of plans and places a floor on the quality of plan a firm can offer, by requiring that the plan contain essential health benefits. Higher-quality plans include more services and carry higher prices.

We use the term "quality of the offer" to capture the ability of a worker to access a plan that will cover needed services. From the worker's perspective, this might mean how much he or she must pay for services and how much flexibility he or she has in selecting a plan that includes the type or level of services needed. Although the ACA places some limitations on a firm's ability to set the quality of coverage (e.g., it eliminates cost-sharing on WellCare visits), a firm still has the ability to affect the ESI offer, because it can set the portion of the premium a worker pays and how many plans it will offer workers. All else being equal, a higher-quality ESI offer means firms pay a large proportion of the premium and offer workers a choice in plans so they can select a plan that best meets their needs (Moran, Chernew, and Hirth 2001).

Both dimensions of quality increase a firm's ESI cost. Heretofore, firms typically reduced their costs by having workers share in the premium costs. In 2010, about 84 percent of workers with single-worker

coverage and 95 percent with family coverage shared the premium payment with the firm; workers paid, on average, about 19 percent of the premium for single-worker coverage and 30 percent for family coverage (Claxton et al. 2010). Firms also control costs by restricting workers' choice in plans. Offering a choice generally increases a firm's ESI costs, since the firm often faces increased premiums as the pool of workers in any one plan falls and insurers charge higher loads. Furthermore, administrative costs increase, since the firm must communicate the details of different plans to workers and potentially negotiate with different insurers. In 2010, 84 percent of firms offering ESI offered only one type of health plan, leaving 48 percent of workers without a choice in plans (Claxton et al. 2010).

Finally, a firm's total expenditure on ESI is determined by the proportion of workers that have access to that offer (Cutler and Madrian 1998), in addition to the level of the per-worker price. Firms often limit who gets the ESI offer by setting a minimum on the number of hours per week a worker must work and the months of tenure a worker must have, and by stipulating that the employment contract be permanent rather than temporary before a worker can receive an offer. The tighter the restrictions (e.g., the greater the number of hours per week or months of tenure required to receive an offer), the lower the ESI costs, since a lower percentage of workers will qualify for an offer. Although the ACA requires large firms to offer workers ESI if they work at least 30 hours per week and have three months of tenure, small firms have no such restrictions.

Firms benefit from offering ESI in at least three areas. First, as the abbreviated history of company-sponsored medical plans suggests, one motivation to offer ESI is a decreased tax burden: employers can deduct both the wages and the ESI expenses as a business expense and are exempt from paying the 6.2 percent payroll tax for Social Security (for workers falling below its maximum wage) and the 1.45 percent payroll tax for Medicare. These tax savings make it relatively cheaper for a firm to compensate a worker with a dollar of ESI than with a dollar of wages, because the dollar of ESI is essentially taxed at a lower rate.

Second, employing workers that are covered for health care can increase productivity. (O'Brien [2003] provides a summary.) Workers with health insurance have better health outcomes (Levy and Meltzer 2001), reduced absenteeism (Paringer 1983), and increased productiv-

ity (Dey and Flinn 2005; Kessler and Stang 2006). Firms offering ESI also have reduced worker turnover, as workers are more likely to stay with the firm for the insurance (Buchmueller and Valletta 1996; Cooper and Monheit 1993; Mitchell 1982).[7]

Third, arguably the largest benefit to offering ESI is that a firm can use ESI to attract and retain workers with desired workforce skills, because many workers want it as part of their compensation. In one study, 73 percent of workers said the ESI provided by their employer was a very important factor in their decision to take or keep a job (Duchon et al. 2000), 65 percent ranked health insurance as the most important employee benefit, and only 10 percent stated they would prefer a wage increase to health insurance (Salisbury and Ostuw 2000).

**Heterogeneity in ESI Demand and Homogeneity in ESI Offer**

While some workers prefer trading a portion of wages for ESI, or vice versa, others do not. In the aggregate, workers appear to be willing to trade one for the other dollar-for-dollar (Gruber 1994; Gruber and Krueger 1991); however, some workers place a greater weight on wages (Baicker and Chandra 2006; Olson 2002), while others value the additional dollar spent on health care significantly more than the additional wage dollar (Royalty 2008).

Workers' relative preference for wages or health insurance determines, to a large extent, how much firms gain from offering ESI. If workers value an additional dollar spent on wages and an additional dollar spent on ESI equally, firms will be indifferent about whether to offer a worker one dollar's worth of wages or one dollar's worth of ESI as compensation (Cutler 1997; Pauly 1997; Summers 1989). If workers value one additional dollar spent on ESI more than an additional dollar spent on wages, a firm benefits from trading some wages for ESI because it will be able to attract more workers with one dollar of ESI than with one dollar of wages. Workers might value ESI more than wages because firms frequently can offer insurance to their workers at a lower cost than workers would have to pay to obtain it in the nongroup market and because nonwage compensation is not included in their taxable income.[8] Conversely, if workers value one dollar of wages more than one dollar of ESI, the firm benefits from offering additional wage compensation. Workers might not value ESI highly, as they may

have insurance from another source (such as their spouse or the government) or would rather have wage compensation and remain uninsured because they believe themselves to be healthy and not in need of health insurance.

A firm can maximize the value of a worker's compensation and its ability to attach a desired worker more securely to the company by individually negotiating the compensation package. With individually negotiated benefits, a firm is able to allocate the dollars it has devoted to compensation in a manner that mirrors the worker's relative preferences. For some workers, the package would contain all wages; for others it would contain (lower) wages and health insurance. Unfortunately, both governmental and market forces virtually remove the possibility of individual-level negotiation of a compensation package. Section 105(h) of the Internal Revenue Code prohibits individual-level negotiation of compensation; the nondiscrimination rule[9] governs firms with self-insured health plans (EBRI 2009a)[10] or with cafeteria plans that include health insurance.[11] The ACA imposed similar nondiscrimination rules on insured group health plans issued on or after September 23, 2010.

The general idea behind the nondiscrimination rule is that benefits for higher-paid employees must be equivalent to those for lower-paid employees. Its application requires firms to meet one of three coverage tests: 1) 70 percent of all employees benefit under the plan; 2) the plan benefits 80 percent of eligible employees, and 70 percent of all employees are eligible; or 3) the plan benefits a nondiscriminatory classification of employees (e.g., the same type and level of benefits are available to all). Because firms offering multiple health insurance options might face difficulty in passing either the first or second test since employees are dispersed among the various plans, many firms satisfy the nondiscrimination rule by offering the same plan to all eligible workers.

Group plans offered through a third-party insurer and put in place before September 23, 2010, are not affected by the nondiscrimination rule; however, they face many of the same restrictions from insurers who structure their contracts to reward large, nonselect groups. Such contracts require that individuals, to be eligible, meet minimum standards on certain health conditions; this reduces the probability of adverse selection in the pool of covered individuals.

The nondiscrimination and third-party rules provide firms with an incentive to move from individual-level negotiation of health insurance

to firm-wide negotiation, using a strategy of offering ESI that meets the preferences of the typical worker it desires to attract (Gruber and Lettau 2004).[12] Indeed, the heterogeneity in workers' preferences for ESI and wages, combined with workers' ability to sort among firms whose compensation packages best match their preferences, gives firms a strong incentive to tailor ESI so that it will attract workers with the desired characteristics (Hirth et al. 2006; Monheit and Vistnes 1999).

**Firm Size Matters in Offering ESI**

Whether or not a firm offers health insurance to its workers depends on the relative costs and benefits from extending the offer. The cost side of the comparison is determined, to a large extent, by the firm's size, although a wide variation in cost exists even for firms of the same size. In 2005, premium contributions as a share of a firm's payroll ranged from less than 4 percent to more than 15 percent (Eibner, Kapur, and Marquis 2006).

Cost differentials are created across and within the two distinct markets for ESI: large-group and small-group (Hall 2000).[13] The large-group market for ESI consists of firms with more than 50 workers. The primary regulatory factors for that market are determined by whether the firm is self-insured: firms that self-insure are subject to ERISA regulation, whereas firms with third-party insurance are subject to state regulation. The large-group market is experience-rated among groups but community-rated within groups, and underwriting is focused on group averages. The small-group market for ESI consists of firms with 50 or fewer workers. Because very few firms in this market are self-insured, the market is largely governed by state laws (and, to a lesser extent, by HIPAA). States generally exercise the most oversight of plan content in this market. Although regulations have largely diminished the use of medical underwriting in this market, it was still present in the years preceding implementation of the ACA.

The distinction in the markets for ESI that existed between large and small firms—again, defined by a 50-worker ceiling for small firms—did not go unrecognized in the ACA. Critical provisions of the legislation acknowledged the different cost structures facing large and small firms by structuring different incentives for them to offer ESI in the postreform period. The ACA requires large firms to offer ESI or

potentially face financial penalties. Small firms will not be required to offer ESI by the ACA, and some of them will be eligible to receive a tax credit if they choose to offer it.

Because the market for ESI differed between large and small firms in the prereform era and will continue to differ after the ACA is implemented, the incentive to offer ESI likewise differs systematically by the 50-worker demarcation. As a result, assessment of their prereform behavior and predictions about their postreform behavior must be undertaken separately for large and small firms.

**Workforce Skills Matter in Offering ESI**

The benefits side of the cost-benefit equation of offering ESI is heavily dependent upon the relative preferences of a firm's workers for ESI. One dimension along which worker preference for ESI varies is wages, as high-wage workers tend to value ESI more highly than do low-wage workers (Royalty 2000). Progressive marginal tax rates make the tax savings from nonwage compensation greater for high-wage workers than for low-wage workers.[14] Although all workers pay taxes on their wages and pay no tax on ESI, workers paying a 35 percent marginal rate gain a greater dollar value from tax-free health benefits than those paying a 5 percent marginal rate. High-wage workers, who are more likely to fall into the 35 percent marginal tax bracket, therefore receive a greater tax savings from taking compensation in the form of benefits than do low-wage workers, who are more likely to fall into the 5 percent tax bracket. Furthermore, low-wage workers and their families are frequently eligible for Medicaid and indigent care if they face a medical catastrophe (Currie and Yelowitz 2000). ESI largely gives them the ability to purchase routine WellCare and to obtain improved sick care, a luxury they may feel can be forgone to purchase necessities. Under such circumstances, they might prefer wage compensation to purchase goods rather than the option of having ESI.

Research generally supports the proposition that high-wage workers have a greater preference for ESI as compensation than low-wage workers have: studies show that firms with high-wage workforces are more likely to offer a generous health insurance plan than those with low-wage workforces (Bundorf 2002; Cooper and Schone 1997; Vanness

and Wolfe 2002),[15] and firms composed of young, low-wage workers (Evans and Leighton 1989; Hadley and Reschovsky 2002; Long and Marquis 1992) often do not provide health insurance. Furthermore, research shows a strong overlap (about 80 percent) between employees wanting (or not wanting) insurance and firms offering (or not offering) it (Hirth et al. 2006); much of the incongruity—the remaining 20 percent—lies with high-wage workers employed in firms with mostly low-wage workers, or low-wage workers employed in firms with mostly high-wage workers. Of course, the ACA explicitly attempted to change workers' preferences for ESI by requiring essential health care coverage for most individuals; however, it also may have further decreased the preference for ESI among low-wage workers by expanding Medicaid eligibility and offering premium credits in the exchanges for low-to-moderate-wage workers.

While wages might serve as a good proxy for worker preference for ESI among researchers, in actual practice wages alone make a poor criterion for establishing compensation policy since compensation is far broader; thus, wages must be considered with other benefits when making policy. After all, ESI is a critical component for workers when selecting a firm for employment (Lehrer and Pereira 2007). This, of course, presents firms with an opportunity to use ESI to attract the types of skills they need in workers.

The line of causality between wages and ESI is important because it allows firms the chance to strategically structure a firm-wide ESI policy. Firms that need high-skilled workers are likely to have high-wage workers, and such workers generally place a relatively high marginal value on ESI. Firms are therefore likely to attract such workers by building a compensation package that includes health insurance. In contrast, firms whose production relies on low-skilled workers, who are paid relatively lower wages, might be able to attract them by weighting the compensation package toward increased wages and not including much ESI.

The incentive for firms to set ESI firm-wide and the strategy of using ESI to attract workers with needed skills suggests that firms in which a majority of the positions require high skills will have an incentive to offer ESI, because their typical worker will have a relatively high preference for trading some wages for a generous health care plan. In

contrast, firms in which a majority of the positions require a relatively low level of skills will have an incentive to offer added wages in lieu of ESI and offer a less generous plan, if they offer ESI at all.

## Costs, Benefits, and the ACA

Using the cost-benefit framework and the level of workforce skills to capture the benefits a firm receives from offering ESI provides insights as to which firms are likely to make a high-quality ESI offer to workers. Because high-skilled workers are likely to value ESI as compensation, firms in which at least a majority of the positions require high-skilled workers—what we call *high-skilled firms*—will be more likely to make an ESI offer, and to make a higher-quality offer, than other firms. Because low-skilled workers are likely to value additional wages as compensation, firms in which at least a majority of the positions require low-skilled workers—what we call *low-skilled firms*—will be less likely to make an ESI offer, and more likely to make a lower-quality offer, than other firms. These predictions are likely to hold true within each of the two markets for ESI.

Bifurcation of the ESI market into large- and small-group markets also allows for straightforward predictions about a certain type of firm's behavior within each type of market, or about each type of firm's behavior in a particular market, but it makes for questionable predictions involving cross-firm, cross-market scenarios. That is, a high-skilled firm in the small-group market will be more likely to make a high-quality offer of ESI than a low-skilled firm in the same market, and a high-skilled firm in the large-group market will be more likely to make a high-quality ESI offer than a high-skilled firm in the small-group market. It is unclear, however, whether a high-skilled firm in the small-group market is more or less likely to make a high-quality ESI offer than a low-skilled firm in the large-group market, because the relative costs and benefits in the comparisons do not work in the same direction.

The cost-benefit framework, the use of workforce skill levels to capture the benefits of offering ESI, and the bifurcation of the ESI market are also useful tools in doing two other things. First, they help to predict what changes will occur in a firm's offer of ESI once the ACA becomes fully implemented. Second, they help to determine whether those changes will increase or decrease the disparities in the ESI offers

between low-wage and high-wage workers or between small and large firms that existed in the prereform period.

It seems obvious that changes designed to increase the benefits that accrue to a firm from offering ESI will increase its probability of offering it, and changes designed to increase its costs will decrease its probability of offering it, other things being equal. What might be less obvious is that changes in behavior accompanying the ACA that cause large firms or firms with high-skilled workforces to improve their ESI offer will increase the disparity in ESI offers, unless small firms or firms with low-skilled workforces also improve their offer. Conversely, changes that cause small firms or firms with low-skilled workforces to improve their ESI offer will, unless there are similar changes in large firms or those with high-skilled workforces, reduce the disparities.

**Empirical Considerations and Data**

Modeling the benefits to the firm of offering ESI, as measured by workforce skills, and modeling the firm's costs, as measured by whether the firm belongs to a large- or a small-group market, is uncomplicated and straightforward. The prediction of whether the ESI offer ($h$) of a firm ($f$) is influenced by the market ($S$) in which it purchases ESI—i.e., large- or small-group—and the skills of its workforce ($SK$) can easily be modeled and estimated *in the aggregate* with a linear empirical model that also controls for other factors (e.g., industry, location, or for-profit status) ($C$):

$$(2.1) \quad H_f = h(SK_f, S_f, C_f).$$

When the specification in Equation (2.1) is estimated for any measure of the ESI offer, the results can be used to test the proposition that the skills of a firm's workforce and the market in which that firm operates are correlated with its ESI offer. To examine the general behavior of firms in the large- or small-group market, however, empirical estimations must be stratified by $S_f$ for analysis of behaviors in separate markets. The interest in the stratified estimations lies in how workforce skills are correlated with measures of ESI, each of which captures a different dimension of health insurance. The simple correlations from such estimations, without measures of firm characteristics ($C$), provide

insights into past associations between workforce skills and a dimension of ESI, which can be used as a basis for extrapolating behavior into the postreform period.

The simplicity of the Equation (2.1) specification masks the complexity of its requirements for data, however. (Glied and Zivin [2004] provide a discussion.) Estimating the specification requires firm-level data containing measures of the firm's ESI offer, measures of the firm's characteristics, and measures of its workforce skills. The three most frequently used databases with firm-level data on the ESI offer do not contain information about the skills of a firm's workforce or alternative measures of workforce preferences for ESI or wages, however.[16] Without this information the data are limited in their ability to extrapolate changes in firm behavior that might occur with the ACA. Furthermore, the information often uses workers' wage levels to describe associations with health insurance, which leaves unobserved (to the researcher) differences in worker productivity or in jobs that increase both wages and health benefits and may serve as the basis for offering ESI (Buchmueller and Lettau 1997; Currie and Madrian 1999; Levy and Feldman 2001; Miller 2004; Monheit et al. 1985; Simon 2001).

The CHES database contains the information needed to estimate Equation (2.1) and can be used to describe the behavior of firms toward ESI in the prereform period.[17] The CHES asked respondents whether their firms offered each of 22 different benefits, including health benefits. For firms that did offer health benefits, surveyors asked a series of questions about those benefits, including the number and kinds of plans offered, how many months employees had to wait and how many hours per week they had to work before they could enroll in health benefits, and whether health benefits were available to seasonal and temporary workers. The CHES also asked questions about the typical plan a worker selects ("We are interested in knowing about the health care plan most workers select"), including the percentage of the premium the firm paid.

I used this information to construct several different measures of $H$ in Equation (2.1), including a binary measure of whether the firm offered health insurance, as well as measures of access to and quality of the offer.[18] Access measures include the number of hours worked per week and the number of months an employee must be with the firm to receive an offer. We used a 30-hour-per-week (or less) work require-

ment and three months (or less) of tenure as delineations of access, in order to be consistent with the ACA requirements that large firms must meet to avoid incurring penalties. Measures of the quality of the offer include whether a firm pays 90 percent of the premium and to what extent the firm offers choice of coverage (number of plans it offers and number of kinds of coverage it offers—conventional, HMO, PPO, POS, or other).

The CHES also asked specific questions about how firms that offered ESI responded when health care costs increased, and about the reasons firms gave for not offering it. Firms that offered ESI answered a series of questions about what they had done in the past three to five years in response to escalating health care costs. Specifically, respondents answered "Yes" or "No" to a query that began, "In response to rising health care costs, did your firm . . . " The question then presented a series of specific actions loosely categorized into four types of changes: 1) changes to benefits; 2) changes to the quality of the health insurance; 3) changes to employees' access to the offer; and 4) changes to wages, prices, and employment. Firms that did not offer ESI were asked to rate the reasons why they did not offer it. Specifically, respondents were asked, "We are interested in knowing why your firm does not offer health insurance. On a scale where one is not at all important and five is very important, please say why your firm does NOT offer health insurance to its workers." Specific reasons were loosely categorized as belonging to one of three types: 1) health insurance costs, 2) workforce characteristics, and 3) worker demand for health insurance. The same firms were surveyed about "the impact NOT offering health insurance has on your workforce" by being asked to rate, "on a scale where one is virtually no impact and five is a very large impact," the potential consequences of not offering insurance, which were loosely categorized into the following five types: 1) recruiting, 2) retention, 3) worker health, 4) worker attitude, and 5) success of the business.

Arguably the most critical difference between the CHES and other firm-level data is the ability of the CHES to use education and work experience to measure workforce skills (*SK*) as opposed to wages, the more typical construct for examining disparities in ESI offers. Of course, the strong correlation between education, work experience, and wages suggests that whether one chooses to use education or wages in examining differences in ESI offers among workers may well be

inconsequential. Arguably, this position might hold true if my research focused on disparities for individuals. It is less persuasive if the focus is on the behavior of firms when both wages and health insurance are used to compensate workers for skills.

The CHES obtained information on workforce skills, as surveyors asked the following: "We would like to ask a few questions about the different types of positions you have. We are particularly interested in learning about positions requiring different levels of education and work experience. In answering these questions, we would like you to think about ALL the positions in this firm at this location and to classify them by the education and training level required of workers when they start the job. What percentage of ALL workers are in [position level]? Please include anyone working on-site, such as temp help and contract workers."[19] Position levels included "entry level" (no more than a high school education and no more than one year of work experience at the time of hire), "mid-level" (some college and/or some work experience—say, one to three years at the time of hire), and "high-level" (a college degree or more and/or extensive work experience at the time of hire).

The percentage of low-skilled and the percentage of high-skilled workers are used to construct binary measures of whether a firm has a majority of low-skilled positions (that is, a low-skilled firm) or a majority of high-skilled positions (a high-skilled firm). Using this categorization, 26.8 percent of the CHES firms were low-skilled firms, and 30.1 percent were high-skilled in weighted analyses (Table 2.1).[20] These categories allow us to examine potential distributional consequences of the ACA for low-wage and high-wage workers by comparing the behaviors of low-skilled and high-skilled firms.

The CHES also collected information on the number of workers in the firm, which allows us to categorize firms into small- and large-group markets. Surveyors asked, "How many workers are at ALL locations? (Include all workers, including part-time/full-time, temporary/permanent, *that are paid by the firm*.)" Firms were provided 12 categories: 1–4, 5–9, 10–19, 20–50, 51–99, 100–299, 300–499, 500–999, 1,000–1,999, 2,000–4,999, 5,000–9,999, and 10,000+. We collapsed the CHES categories to approximate the definition in the ACA of large firms (at least 51 full-time-equivalent workers), which generally corresponds to the size delimiters of small- and large-group markets. We

**Table 2.1 Distribution of CHES Firms by Offer of Health Insurance (%)**

| | Distribution | Offer health insurance | Do not offer health insurance |
|---|---|---|---|
| Total | 100.0 | 77.6 | 22.4** |
| Workforce skills | | | |
| Low-skilled | 26.8 | 23.4 | 38.6** |
| High-skilled | 30.1 | 32.5 | 21.7** |
| Size (number of workers) | | | |
| 5–19 | 65.2 | 60.5 | 81.5** |
| 20–50 | 20.8 | 22.0 | 17.0** |
| 51–99 | 3.9 | 4.7 | 1.2** |
| 100–299 | 4.6 | 5.9 | 0.2** |
| 300+ | 5.4 | 6.9 | 0.2** |
| *N* (unweighted) | 1,427 | 1,245 | 182 |

NOTE: Observations are weighted so that the distribution of sample firms reflects the distribution of firms in the United States with respect to size and industry. Percentages represent the distribution of firms in each category. All rows reflect significant ($p \leq 0.05$) differences between the percentage of firms that offer and the percentage that do not offer insurance, as determined by a *t* test (** significant at the 0.05 level). Columns may not add up to 100.0% because of rounding.
SOURCE: CHES (Maxwell 2007).

used the CHES category of firms with 5–19 workers to approximate the ACA definition of the small-group market eligible for tax credits: that of firms with fewer than 25 full-time-equivalent workers. About 65.2 percent of CHES firms had between 5 and 19 workers and about 20.8 percent had 20–50 workers in the weighted analysis (Table 2.1). About 13.9 percent of CHES firms might be considered large under the ACA, as they contain at least 51 workers.

Finally, the CHES contains information that captures some firm characteristics that have been shown in other research to create differences in the offer of health benefits (i.e., *C* in Equation 2.1), including industry and location (metropolitan or nonmetropolitan) of the firm and information on whether it is unionized or a nonprofit.

Table 2.1 shows how CHES firms are distributed with respect to workforce skills, size, and offer of ESI. The CHES contains 1,245 firms that offer ESI and 182 firms that do not. As expected, the distribution of firms that do not offer it differs dramatically from the distribution of

ones that do, with respect to both workforce skills and size. CHES data suggest that firms offering ESI disproportionately contain a majority of high-skilled positions and are larger in size, while those that do not offer it disproportionately contain a majority of low-skilled positions and are smaller in size. This is consistent with my benefit-cost framework.

## SUMMARY AND DISCUSSION

The marriage of health care access and employment has a nearly century-old history in the United States. In 1929, Baylor Hospital devised a scheme to collect prepaid premiums from employers for guaranteed hospital services, thus initiating the relationship between employment and health care coverage. The marriage flourished during the economic downturn of the 1930s and gained momentum in the 1940s when firms, in order to increase compensation in an effort to attract scarce labor, circumvented the wage and price controls of World War II by expanding or initiating health insurance plans. The proportion of nonelderly individuals covered by ESI continued to grow after the war, as firms could purchase coverage in the group market at a lower premium price than individuals could in the nongroup market, and the preferential tax treatment of ESI for both firms and individuals made it an attractive form of compensation.

This chapter developed a cost-benefit framework for explaining why some firms offer ESI and why the offer would vary between large and small firms (defined using a 50-worker demarcation) and between firms requiring different levels of skills from their workers. The framework posited that firms with high-skilled workforces would benefit more (at the margin) from making a high-quality ESI offer to their workers, while those with low-skilled workforces would benefit more from offering additional wages. The framework further posited that large firms have lower per-worker ESI costs than small firms; the difference is created, in part, by different markets for ESI. The bifurcation of markets requires examining ESI offers separately for firms operating in the small-group market and those operating in the large-group market.

This research uses the framework and the CHES data to explain a firm's ESI offer—and the disparities in that offer—in the period prior

to the ACA being enacted, and to provide a basis for assessing changes that might occur after the legislation is implemented. The CHES is uniquely suited for this purpose because it contains firm-level data and a plethora of information to capture details about a firm's ESI offer, the skills of a firm's workforce, and the number of workers in the firm.

## Notes

1. Much of the material in this section, except where noted, relies on information in Richmond and Fein (2005).
2. At about the same time, prepaid group practice plans—the forerunner of the HMO—arrived. These plans employed salaried physicians or contracted with a group of physicians for services to group members. The AMA's opposition to such plans slowed their growth until 1943, when its actions were ruled a violation of the Sherman Antitrust Act.
3. The states offered preferential tax treatment because they considered the prepaid nature of the nonprofit coalition plans to be prepayments, not insurance.
4. Research has shown factors such as industry, location of the firm, unionization, and for-profit status to be correlated with whether a firm offers ESI. We argue that these differentials arise from systematic differences in costs and benefits along these lines. For example, Ruhm and Borkoski (2003) provide a discussion about worker preferences and compensation in nonprofits.
5. While our discussion is structured as if the firm purchases insurance from a third party, the same general logic applies to a firm that self-insures and makes a "premium" payment to itself. Brien and Panis (2011) provide an overview of self-insured firms and their characteristics.
6. Although some argue that state mandates underlie the premium increase for small firms, Williams and Lee (2002) provide evidence that they do not.
7. In contrast, Kapur (1998) and Holtz-Eakin (1994) find no effect on mobility, Gilleskie and Lutz (2002) find no effect on mobility for married males and only a small (10 percent) reduction for single males, and some research questions the efficiency of "job lock"—the reluctance of an employee to leave a job because doing so would result in the loss of health or retirement benefits (Gruber and Madrian 1994, 2002; Madrian 1994).
8. The tax benefit alone is estimated at an average of 27 percent of the premium price (Gruber and Poterba 1996).
9. In 2008, the nondiscrimination rule covered 89 percent of workers employed in firms with 5,000 or more employees, leaving 55 percent of workers with health insurance coverage through a self-insured plan (EBRI 2009b) and subject to the purview of the nondiscrimination rule. Several of its provisions allow a firm to discriminate, however. Firms can establish separate plans for distinct classes of large groups (more than 50 employees) by using a business rationale (e.g., hourly and salaried), although explicit grouping by compensation level is not allowed.

Businesses can also exclude certain workers from the rule (e.g., those with less than three years of tenure, those under age 25, those who are part-time or seasonal, and those working under a collective bargaining agreement). Carrington, McCue, and Pierce (2002) provide a discussion.

10. A self-insured plan is one in which the firm acts as its own insurer and bears the risk of providing health coverage for insured events, even if the employer contracts with an insurance company to administer the plan. In contrast, a fully insured plan is one in which a firm pays a per-employee premium to a third party (an insurance company), which then assumes the risk of providing health care for insured events. Congress restricted nondiscrimination coverage to self-insured plans in part because ERISA exempts self-insured plans from state insurance laws. However, these laws apply to fully insured plans; thus Congress believed the laws would protect workers from discrimination. Indeed, one reason employers self-insure is that then they are not subject to state-mandated benefit laws and insurance premium taxes and can therefore provide a uniform set of benefits to all employees regardless of where they live.
11. Unless a cafeteria plan meets various reporting and nondiscrimination requirements, benefits received through that plan are taxed, because recipients are deemed to be in constructive receipt of the cash (Lyke 2006).
12. Gruber and Lettau (2004) support this focus of the ESI offer on the typical worker by showing the disproportionate amount of influence that the median worker has on a firm's health insurance coverage ("median" in this case is measured with respect to wages). The distinction between "marginal," "average," and "typical" worker is not superfluous. Goldstein and Pauly (1976) highlight how firms that base their offer on the characteristics of the median worker might weight the offer more towards lower-wage workers than if they used average wages, because the low-end boundary of zero or minimum wage makes median wages lower than average wages. The distinction becomes less salient if firms base their offer on skills and not wages, as this study argues for.
13. We ignore the individual market in this discussion because our focus is on ESI. Hall (2000) provides a good discussion of "border crossing" techniques that blur these market divisions.
14. Pauly (2001) provides a succinct overview of the issues in the wrap-up to his volume on employment-based health insurance.
15. Simulations suggest that the presence of highly compensated workers can be a substantial influence in setting the trade-off (Gruber and Lettau 2004).
16. The Medical Expenditure Panel Survey (MEPS), an annual survey of households, medical providers, and establishments across the United States, contains an Insurance Component (MEPS-IC) that surveys private firms and public agencies about the number and types of private health insurance plans they offer and includes information on the plans' benefits, premiums, contributions by firms, workers' eligibility requirements, and firm characteristics such as size and industry (Agency for Healthcare Research and Quality 2009). In 2008, about 38,754 firms were surveyed. The closest equivalent to a measure of workforce skills in the MEPS-IC is the information about the percentages of workers in three categories: 1) those

earning less than $11 an hour, 2) those earning between $11 and $25.50, and 3) those earning more than $25.50. However, wage measures confound the measurement of skills (higher-skilled workers earn higher wages) and institutional factors (e.g., a unionized environment raises wages irrespective of skills), making it a less-than-clean measure of skills.

The National Compensation Survey (NCS) annually surveys establishments (not including the federal government or agriculture) nationwide for information on occupational wages, employment cost trends, benefit incidence, and plan provision (BLS 2009) and includes information on establishments' industry and size. In 2007, about 36,433 establishments were surveyed. Although occupational wages might approximate workforce skills because they are available for different occupational levels, as defined by the duties and responsibilities of the jobs, the listing of occupations is not exhaustive within an establishment. As a result, the NCS contains no measure of the overall level of skills in a firm's workforce.

The Kaiser Family Foundation (KFF) and the Health Research and Education Trust's (HRET) Employer Health Benefits Survey (EHBS) annually surveys firms for a detailed look at trends in employer-sponsored health coverage. The California version of EHBS, called the California Employer Health Benefits Survey, or CEHBS (California Healthcare Foundation 2012), allows for a direct comparison with the CHES data used in this study. Firm characteristics in both databases include size, region, and industry. The 2007 survey included 3,078 randomly selected public and private firms with three or more employees (1,997 of which responded to the full survey and 1,081 of which responded to an additional question about offering coverage). Neither CEHBS nor EHBS provides any information on workforce skills.

17. Differences between CHES and CEHBS (discussed in note 16) provide insights into possible biases that might arise in using CHES. Differences emerge in six critical areas. First, CHES includes only establishments with five or more employees, while CEHBS/EHBS includes those with three or more employees. Second, CHES selected 27 northern California counties for a random sampling of private-sector establishments within each county and a sample of firms with an urban-rural distribution close to that for the nation as a whole, whereas CEHBS randomly selected private-sector firms throughout California. Third, although both surveys stratified sampling by firm size to oversample large establishments, CHES defined "large" as 50 or more employees, while CEHBS defined it as 200 or more employees. Fourth, CHES used a Yellow Pages–based marketing systems database, while CEHBS used Dun and Bradstreet. Fifth, CHES had a 67 percent response rate, whereas CEHBS had only a 48 percent rate. And sixth, CHES had a more open-ended question related to health benefits ("Does your firm offer health benefits?") and a definition of health benefits that included union-only plans, while CEHBS excluded union plans and asked a more narrowly targeted question ("Does your company offer or contribute to a health insurance program as a benefit to your employees?"). As might be expected given the CEHBS/EHBS inclusion of firms with three or four persons and its narrower definition of health benefits, the CHES shows higher-weighted estimates of the percentage of firms that offer health insur-

ance. CEHBS data suggest that 71 percent of California firms offer health insurance, while CHES data (California weights) suggest that 79 percent do.

18. Appendix C provides a detailed definition of all empirical constructs.
19. Temporary and contract workers are seldom eligible for health insurance, but are included in the composition of the firm's workforce. To determine if their inclusion produced biases in estimations, we included measures of the percentage of temporary/contract workers in estimations; however, they were rarely significant and were therefore dropped from analyses.
20. Some 27.2 percent of firms were mid-skilled, and about 16 percent had a mixed-skilled workforce (i.e., did not have a majority of workers at any single skill level).

# 3
# Benchmarking Change

## Employer-Supported Insurance before the ACA

The ACA was designed to increase the percentage of individuals with access to health care, to increase the quality of health care, and to control health care costs, as Chapter 1 discussed. Achieving these goals would reduce the discrepancies in coverage that existed in the prereform period. To help achieve its goals, the ACA kept ESI as the cornerstone of coverage for individuals under age 65 and clearly defined requirements for firms, individuals, and governments.

In the years preceding passage of the ACA, Massachusetts, Vermont, and Hawaii all enacted similar legislation—Hawaii in 1974; Massachusetts and Vermont in 2006. How firms and individuals responded to the legislation in those states might indicate the types of changes that will occur after the ACA is fully implemented. These responses suggest that the ACA may expand both public and private health insurance coverage. The percentage of uninsured in Hawaii fell from 11 to 10 percent after the mandate (Dick 1994).[1] The increased take-up of public insurance in Vermont lowered the number of uninsured after the mandate but potentially decreased the ESI take-up (Deprez et al. 2010). Massachusetts saw a dramatic decline in the percentage of its uninsured population after legislation, but reforms in the insurance market had occurred at about the same time, making attribution problematic (Long 2008).

Such changes in ESI might be accompanied by a change in a firm's behavior that would spill over into other workforce areas. For instance, the National Federation of Independent Business (NFIB 2008) suggests that businesses might increase product prices, close operations, or reduce employment under legislation similar to the ACA. Research supports at least some of these suppositions (Baicker and Levy 2007) and raises new ones. Hawaii's increase in part-time employment after its mandate (Thurston 1997) suggests that firms might shift employment in ways that reduce worker eligibility for an ESI offer. Furthermore, some of the costs of the legislation might be shifted to workers

in the form of lower wages (Abraham and Voos 2008), especially with increases in the firm's premium payments (Sinaiko 2004) or the quality of mandated services in a plan, such as a requirement that families be covered (Baicker and Levy 2007).

The impact of the ACA—intentional and unintentional—might disproportionately affect low-wage workers. The ACA's provisions, like those in Massachusetts, Vermont, and Hawaii, broadly target workers and their families for increased coverage. Low-wage workers frequently fail to meet these coverage requirements (e.g., they are part-time workers) and are at increased risk of unemployment. Both conditions leave them less likely to obtain an ESI offer, even with expanded coverage, than other workers (Burkhauser and Simon 2007). Moreover, because legislative requirements might change employment opportunities and work hours, low-wage workers could become more vulnerable to shifts that occur with expanded coverage.

This chapter discusses the ways in which the ACA might affect whether a firm offers ESI. For those firms that do offer ESI after the ACA takes effect, the chapter discusses how the ACA may affect the access to and quality of the offer. Because my analysis is grounded in CHES data that were obtained from firms in 2005–2006, it provides a benchmark for behavior, allowing me to identify potential changes that the ACA might produce with respect to whether firms make an ESI offer, the access to the offer, and the quality of the offer. It also provides a benchmark for the disparities between low- and high-skilled firms in the ESI offers that existed prior to the ACA reform, so that we can assess the potential for changes in ESI disparities between low-wage and high-wage workers that may occur under the ACA.

## LEGISLATING TO INCREASE ESI COVERAGE AND REDUCE ESI DISPARITIES

The ACA contains several provisions designed to reshape ESI in a way that increases the number of workers who would receive an ESI offer. It has, at its core, provisions that attempt to increase coverage in each of the three areas required for a worker to gain coverage: 1) offer, 2) eligibility, and 3) take-up (Table 3.1). The act recognizes the dif-

ferent constraints facing firms operating in the small- and large-group markets, and its provisions have structured different incentives for large and small firms to offer ESI.

**Offer and Access**

The ACA requires large firms (firms employing at least 50 full-time-equivalent workers) to provide employees that work at least 30 hours a week and their dependents (up to age 26) with affordable insurance within 90 days of their employment or potentially face financial penalties. The ability of the legislation to expand coverage in large firms hinges on two factors: 1) the extent to which large firms already meet these requirements and, if they do not, 2) the extent to which potential penalties can induce behavioral change. If virtually all large firms already offer ESI to employees working at least 30 hours a week and having at least three months of tenure, the ACA will not expand the number of workers offered coverage.

But if few large firms had structured their prereform offer in a way that meets the ACA requirement, facing a potential penalty might change their behavior, spurring them to offer expanded coverage. Alternatively, firms might opt to face the penalty and continue to not offer ESI. The relatively small size of the penalty has left open the question of which choice a firm will make. The ACA will invoke a penalty on a large firm offering ESI of $2,000 per ESI-eligible employee after the first 30 such employees if the firm's plan does not meet minimum essential coverage, or $3,000 for each employee who receives an exchange subsidy because the plan exceeds 9.5 percent of household income. (The total amount cannot exceed $2,000 times the number of employees after the first 30.) Similarly, the penalty for not offering ESI is $2,000 per eligible worker after the first 30 workers. These penalties are lower than the 2010 EHBS-estimated ESI premiums of $5,049 for single coverage and $13,770 for family coverage (Claxton et al. 2010), which makes it financially advantageous for some firms to pay the penalty and not offer ESI.[2]

The ACA took a completely different approach to structuring incentives for small firms to offer ESI. It structured the Small Business Health Options Program (SHOP) within the exchanges and developed small-group market reforms to provide more-affordable ESI options

**Table 3.1 Major ACA Provisions Affecting ESI**

| Aspects of plans offered | Potential influence on firm or ESI |
|---|---|
| Coverage | |
| Offer | |
| Large firm required to offer ESI or pay penalty. | Increase cost if firm did not previously offer ESI. |
| Some small firms receive tax credits for premiums. | Reduce cost of providing ESI. |
| Access/eligibility | |
| Young adults remain on parents' ESI plan. | Increase ESI premium by expanding coverage. |
| No rescissions. | Increase ESI premium by expanding coverage and increasing risk pool. |
| For large firms: | |
| Family coverage required. | Increase ESI cost if firm did not offer by expanding coverage. |
| 30+ hours a week qualifies workers and dependents. | Increase ESI cost if access was more stringent. |
| Three-month limit on wait period for ESI. | Increase ESI cost if access was more stringent. |
| Take-up | |
| Individual required to have minimum essential coverage. | Increase ESI take-up; reduce ESI premium with better risk pool. |
| Premium subsidies (tax credits) to low-income persons. | Reduce ESI take-up by offering some low-wage individuals subsidized insurance in exchange. |
| Automatic ESI enrollment, opt-out provision. | Increase ESI take-up by making enrollment easier. |
| Medicaid expansion. | Decrease ESI take-up among low-wage workers by providing lower-cost alternative. |

| | |
|---|---|
| Quality requirements for plans | |
| High-cost plan excise tax. | Eliminate or reduce high-end ESI health plans by increasing their cost. |
| Nondiscrimination rule for all firms. | Equalize quality of offer throughout firm. |
| Essential health benefits package mandated. | Increase ESI premium price by increasing services. |
| Limits on annual out-of-pocket spending. | Increase ESI premium price by increasing payments for services. |
| No copayments for preventive care. | Increase ESI premium price by increasing payments for services. |
| No limits on annual benefits. | Increase ESI premium price by increasing payments for services. |
| No limits on lifetime benefits. | Increase ESI premium price by increasing payments for services. |
| No exclusion for preexisting conditions. | Increase ESI premium price by increasing payments for services. |
| Cost containment | |
| Review premium increases. | Slow ESI premium increases. |
| Require insurers to spend 85 percent of the premiums on direct care. | Slow ESI premium increases. |
| Transparency in pricing and benefits. | Slow ESI premium increases. |

NOTE: Table includes only selected provisions of the ACA that might affect a firm's ESI offer.
SOURCE: Author's interpretation of the literature on the intent of the legislation.

with more-stable premiums. It also structured tax credits for premium payments for some small firms to help offset part of the costs of offering ESI. Starting in 2014, all firms with fewer than 100 employees will be eligible to purchase coverage in the SHOP exchanges, and the reformed small-group market outside the exchanges will be in effect. For example, plans in the exchanges will be required to conform to the new rating restrictions (60, 70, 80, and 90 percent of actuarial value), which will make cost comparisons across plans more feasible.[3] Premiums will only be allowed to vary in the exchanges and small-group markets based on age, tobacco use, geography, and single/family policy, which will stabilize the premium price. Firms (excluding sole proprietorships) with fewer than 25 full-time employees that contribute at least 50 percent to the worker's ESI premium will be eligible for tax credits of up to 50 percent of the employer contribution (Commonwealth Fund 2010).

**Take-Up**

The ACA took a shotgun approach to influencing the rate at which workers take the ESI offer, in contrast with its targeted approach to increasing ESI offer rates within both the small- and the large-group market. Broad incentives for workers to take an ESI offer were created by the requirement for most individuals to have minimum essential health care coverage (or pay financial penalties). New full-time workers in firms with more than 200 full-time employees become automatically enrolled in the lowest-cost premium plan, and enrollment of current employees automatically continues unless the worker opts out of the coverage (in contrast to the prereform practice of opting in for coverage). The opt-out provision makes it easier for a worker to enroll and stay in ESI. Some workers who declined the ESI offer and remained uninsured in the prereform period might be motivated to accept the offer in the postreform period by two things: 1) the requirement to have insurance and 2) the ease with which they can get coverage.

The ACA provisions targeted at workers accepting an ESI offer might be offset, in the aggregate, by the law's incentives for some workers to obtain coverage from other venues, which could prompt them to decline the ESI offer. Some of the ACA's provisions, such as premium assistance, will lower the cost of coverage in the nongroup market and provide workers with an incentive to purchase coverage on their own.

Furthermore, some low-wage individuals might decline the ESI offer because, under the ACA, they will become eligible for Medicaid, whose eligibility will expand under the act.

### Quality of Plans

The ACA also contains provisions designed to increase the average quality of the ESI plan by standardizing the offer within and across firms. Standardization within firms might occur with the ACA's extension of the nondiscrimination rule to include new third-party-insured ESI plans and with its excise tax on the aggregate value of plans above a certain threshold. The act imposes a stiff penalty on firms under rules similar to the detailed nondiscrimination rules found in section 105(h) of the Internal Revenue Code. If a plan discriminates in favor of highly compensated individuals it must pay $100 per day for each employee against whom the plan discriminates.[4] The 40 percent excise tax on insurers or plan administrators (of self-insured plans) on high-value "Cadillac" insurance plans beginning in 2018 might also serve to standardize plans within a firm if such plans are no longer offered.

Standardization across firms might occur with the ACA's requirements for essential health services in a plan and for information provided to workers about plans. All new health plans must provide comprehensive coverage, which includes a minimum set of services, caps on annual out-of-pocket spending, no cost-sharing for preventive services, and no annual or lifetime limits on coverage. Information and reporting requirements were designed to ensure that individuals have both knowledge of the individual mandate and proof of meeting it, as well as the ability to compare plans, including ESI plans across firms.

## FIRMS' BEHAVIOR IN THE PREREFORM PERIOD

To determine how ACA requirements might affect the ESI offer and disparities in the offer between low-wage and high-wage workers, I examine the prereform ESI offer both for firms in the aggregate and for firms with different levels of workforce skills. By benchmarking the ESI offer in low-skilled and high-skilled firms in the years prior to

ACA deliberations and assessing the changes that might occur with the ACA, we can envision the ESI offers and disparities after the ACA is implemented. I examine two different dimensions of a firm's behavior before ACA discussions to provide this benchmark. I first assess the measure's potential reach by determining the proportion of firms that did not meet its requirements before it was being actively deliberated. I then assess the extent to which prereform behavior differs between low- and high-skilled firms to determine the measure's potential to affect ESI disparities between low-wage and high-wage workers.

## The Potential Reach of the ACA

The potential of the ACA to meet its goals depends on the number of firms that it will affect. The CHES data can be used to approximate the percentage of large firms that might not meet the requirements to offer ESI to employees. This exercise suggests that the ACA has the potential to change the behavior of a relatively large number of firms (Table 3.2). About 55.4 percent of large firms in 2005–2006 did not meet the ACA requirement to offer coverage to employees working at least 30 hours a week and having three months of tenure. Although only 2.4 percent of large firms did not offer ESI, for the 97.6 percent that did, the offer extended was frequently inconsistent with ACA requirements for coverage. Some 49.4 percent of large firms did not meet the ACA requirement to offer ESI to employees working at least 30 hours per week, and 12.9 percent did not meet the ACA requirement to offer it to workers with at least three months of tenure. Taken together, these numbers suggest that the majority of the 13.9 percent of firms that are large will face increased ESI expenditures, all else being equal, simply from expanding their coverage to meet the ACA requirements or potentially paying penalties for noncompliance.

Several points in the CHES data suggest that the ACA might affect a greater proportion of low-skilled than high-skilled firms. First, a greater proportion of large firms are low-skilled (35.5 percent) than are high-skilled (25.4 percent), which means the ACA coverage requirements for large firms are disproportionately targeted at low-skilled firms (Table 3.3). Second, a significantly ($p \leq 0.10$) greater percentage of large, low-skilled firms (63.1 percent) than large, high-skilled firms (59.1 percent) did not meet the ACA requirements for coverage in 2005–2006 (Table

**Table 3.2 Percentage of Firms Failing to Meet Various ACA Requirements before Legislation**

| | | Workforce skills | |
|---|---|---|---|
| | Total | Low-skilled | High-skilled |
| % offer (CHES, 2005–2006) | 77.6 | 67.6 | 83.8** |
| % large firms not meeting coverage requirements (CHES, 2005–2006) | 55.4 | 62.1 | 58.0* |
| Required more than 30 hours per week of work | 49.4 | 54.0 | 54.6 |
| Required more than 3 months' wait | 12.9 | 14.6 | 4.6** |
| Did not offer health benefits | 2.4 | 2.7 | 2.7 |
| % large firms (weighted) | 13.9 | 18.5 | 11.8** |
| *N* (unweighted) | 725 | 268 | 165 |
| % firms not meeting plan requirements (EHBS, 2010) | | | |
| Cost-sharing for primary care[a] | 95 | — | — |
| Age limit for dependents up to and including age 26 | 88 | — | — |
| Annual limits for single coverage | 66 | — | — |

NOTE: Columns show the percentage of firms that fall into each category. In the CHES data, five firms are missing skill data. Because the CHES computations are based on weighted analysis, numbers in the table cannot be computed using the unweighted *N*. The numbers under the row heading "% firms not meeting plan requirements" are based on the employer plan with the largest enrollment. CHES observations were weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant difference between low- and high-skilled firms at the 0.10 level; ** significant difference between low- and high-skilled firms at the 0.05 level. — = not available.

[a]The table's last three rows come from EHBS data, not CHES data, and so do not carry decimal places, as the EHBS does not report decimals.

SOURCE: CHES (Maxwell 2007); EHBS (Claxton et al. 2010).

3.2). The biggest difference in meeting coverage requirements lies in the period a worker must wait before ESI is offered: 14.6 percent of low-skilled large firms required workers to wait longer than the ACA's three-month limit, but only 4.6 percent of high-skilled firms did not meet this requirement in 2005–2006. If large firms change their ESI offer to meet the ACA's coverage requirements instead of electing to pay the penalties, the coverage in low-skilled firms will expand to

**Table 3.3 Distribution of CHES Firms by Workforce Skills and Size**

| | | Workforce skills | | Firm size (number of workers) | | |
|---|---|---|---|---|---|---|
| | Total distribution | Low-skilled | High-skilled | 5–20 | 21–50 | 51+ |
| Total | 100.0 | 26.8 | 30.0 | 65.2 | 20.8 | 14.0 |
| Workforce skills | | | | | | |
| Low-skilled | 26.8 | 100.0 | 0.0 | 22.9 | 33.3** | 35.5** |
| High-skilled | 30.1 | 0.0 | 100.0 | 32.5 | 25.6** | 25.4** |
| Size | | | | | | |
| 5–20 | 65.2 | 55.7** | 70.5** | 100.0 | 0.0 | 0.0 |
| 21–50 | 20.8 | 25.8** | 17.7** | 0.0 | 100.0 | 0.0 |
| 51+ | 14.0 | 18.5** | 11.8** | 0.0 | 0.0 | 100.0 |
| *N* (unweighted) | 1,427 | 432 | 390 | 474 | 226 | 725 |

NOTE: Columns show the percentage of firms falling into each category. Five firms are missing skill data. Observations were weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant difference between "Total distribution" and other categories at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

become more like the coverage in high-skilled firms, once the ACA is implemented. Coverage expansion would therefore be greater among low-wage workers than among high-wage workers because the firms in which they work would be those most likely to expand coverage.

The ACA's reach might be greater in increasing the quality of the plans firms offer, which could increase the premium price firms must pay. The 2010 EHBS data suggest that virtually none of the largest-enrollment ESI plans in 2010 met ACA requirements (Table 3.2). Although the ACA's grandfathering clause exempts established plans from many of the requirements, eventually firms will want to adopt a new plan and henceforth will be forced to comply with these regulations. About 95 percent of firms had cost-sharing requirements for primary care, which the ACA most probably will not allow, as new plans cannot have cost-sharing for preventive care. About 88 percent did not allow dependents to remain on the plan until age 26, an ACA requirement that became effective in January 2011. About 66 percent had annual limits for single coverage, which the ACA will not allow.

## The ACA's Potential to Affect Disparities

The potential for low-skilled large firms to be disproportionately affected by the ACA requirements hints at the measure's potential to close ESI disparities between low-wage and high-wage workers. However, this potential depends on the details of ESI offers made by low-skilled and high-skilled firms during the prereform period.

The CHES data provide several ways to capture a firm's ESI offer prior to ACA deliberations, which allows us to compare the offers of low- and high-skilled firms along several dimensions. In addition to the simple binary measure of whether a firm offers ESI, the CHES contains information that is used to capture several measures of access to the offer, including the following three: whether a firm 1) extends the offer to employees who work at least 30 hours a week and either 2) makes workers wait more than three months before receiving an offer or 3) has no wait period before ESI begins. The CHES also provides information that can be used to construct several measures of the quality of the offer, including these three: whether a firm 1) pays at least 90 percent of the premium, which can serve as an extremely crude measure of the financial adequacy of the offer; 2) offers workers a choice in plans (i.e., more than one plan); and 3) offers workers a variety of plans (i.e., more than one type of plan).

The comparative advantage of the CHES data lies in their ability to highlight the differences in the ESI offer between firms with different levels of workforce skills (Table 3.4), although the data also can be used to show differences between large and small firms, as has been highlighted in other research. In 2005–2006, 77.6 percent of CHES firms offered ESI, a figure that broke down into 67.6 percent of low-skilled firms and 83.8 percent of high-skilled firms.[5] While this 16.2-percentage-point differential is far less than the 25.6-percentage-point differential between firms that have 5 to 19 workers and those with 50 or more workers (not shown in the table), its large size nonetheless raises the possibility that low-wage workers might be disproportionately employed in (low-skilled) firms that are less likely to offer ESI.

Even if the firm offers ESI, some workers might not be eligible to receive it if the firm places tight restrictions on who can receive the offer. Workers that are not full-time are especially vulnerable. About 57.1 percent of all CHES firms—and 66.0 percent of low-skilled

firms—required employees to work more than 30 hours per week before insurance was offered (Table 3.4). Still other workers do not receive an ESI offer because they do not have sufficient tenure with the firm. The CHES data suggest that the average wait period was about 3.2 months, and that 18.5 percent of firms made workers wait longer than three months. Once again, workers in low-skilled firms are at a disadvantage, as 26.0 percent of low-skilled firms but 15.7 percent of high-skilled firms made workers wait more than three months for an ESI offer.

If a worker does receive an ESI offer, the quality of the offer may influence, in part, whether the offer is accepted. The CHES data suggest that 60.6 percent of firms offering insurance pay at least 90 percent of the premium (Table 3.4). This number varies dramatically between low-skilled and high-skilled firms, however. Close to three-quarters of high-skilled firms but only about half of low-skilled firms pay at least 90 percent of the ESI premium. Although paying at least 90 percent of the premium is not necessarily an indication of overall quality (since firms might be more willing to pay a higher percentage of a lower-quality plan), it does broadly indicate a relative price workers must pay for ESI.

Offering a choice in plans is another indication of the quality of the ESI offer, for it allows workers to select the coverage that best meets their needs. The ability of the coverage to match worker preferences might be particularly strong if the firm offers a choice not only in plans but in the types of ESI plans it offers (e.g., HMO, PPO). The CHES data suggest that 49.9 percent of all firms offer workers a choice in plans, and 42.5 percent offer a choice in the type of plan. Choice varies with the level of skills characterizing a firm's workforce: 44.3 percent of low-skilled firms and 57.9 percent of high-skilled firms offer workers a choice in plans, and 36.4 percent of low-skilled firms and 51.0 percent of high-skilled firms offer them a choice in the type of plan they can select.

The multivariate analysis that is estimated using Equation (2.1) in Chapter 2 tells virtually the same story as these descriptive statistics, even as it holds other firm characteristics constant. In these estimations, we use each of the ESI outcomes discussed in our descriptive analysis as a dependent variable and control for whether a firm is low-skilled or high-skilled and whether it has only 5 to 19 workers (and is potentially able to receive tax credits for premiums under the ACA) or has 20 to 50 workers. The estimations also control for industry, for-profit status, ruralness, and the presence of a union.

**Table 3.4 Descriptive Analysis of the Disparities among Companies Regarding Making the Offer, Access to the Offer, and Quality of the Offer (%)**

| | | Total | | Large firms | | Small firms | |
|---|---|---|---|---|---|---|---|
| | All firms | Low-skilled | High-skilled | Low-skilled | High-skilled | Low-skilled | High-skilled |
| Making the offer | | | | | | | |
| Offer made | 77.6 | 67.6 | 83.8** | 97.3 | 97.3 | 60.9 | 82.0** |
| Access to offer | | | | | | | |
| Hours | | | | | | | |
| More than 30 hours required | 57.1 | 66.0 | 56.4** | 54.0 | 54.6 | 70.5 | 56.7** |
| Tenure | | | | | | | |
| No wait time | 10.6 | 3.5 | 18.5** | 11.4 | 35.7** | 0.5 | 15.7** |
| More than 3 months' wait | 18.5 | 26.0 | 15.7** | 14.6 | 4.6** | 30.2 | 17.6** |
| Quality of offer | | | | | | | |
| Premium | | | | | | | |
| 90%+ firm-paid premium | 60.6 | 51.5 | 74.3** | 46.4 | 57.6** | 53.1 | 76.9** |
| Plans | | | | | | | |
| At least 2 plans offered | 49.9 | 44.3 | 57.9** | 62.4 | 88.8** | 37.6 | 52.9** |
| At least 2 types of plans offered | 42.5 | 36.4 | 51.0** | 49.1 | 84.6** | 31.7 | 45.5** |
| $N$[a] | 1,427 | 432 | 390 | 268 | 165 | 164 | 225 |
| $n$[b] | 1,245 | 355 | 353 | 255 | 160 | 100 | 183 |

NOTE: CHES observations were weighted so that the distribution of sample firms reflects the distribution of firms in the United States with respect to size and industry. ** significant difference between low- and high-skilled firms at the 0.05 level.

[a] $N$ equals the number of firms offering health insurance.

[b] $n$ is a subset equalling the number of firms providing easy access to and a good quality of health insurance.

SOURCE: CHES (Maxwell 2007).

Significant workforce skill and size coefficients indicate that the ESI offer varies along these lines. Our intent with the multivariate analysis is not to structure a model that can test the determinants of a firm's coverage, but to establish and isolate the role of workforce skills (controlling for the characteristics and size of firms) insofar as they contribute to the firm making a quality ESI offer to workers.

Probit estimations generally support the disparities in access to and quality of the ESI offer that arise between low-skilled and high-skilled firms (Table 3.5) and that are shown in the descriptive analysis. Both workforce skills and firm size influence not only whether a firm offers insurance but the access to the offer and the quality of the offer. Estimations suggest that both access to and quality of an ESI offer are lower in firms dominated by low-skilled positions. The probability that a firm offers ESI is lower in low-skilled firms, and the requirement that employees work more than 30 hours per week and wait more than three months before receiving an offer is increased in them. Furthermore, the probability that a firm pays at least 90 percent of the premium, offers at least two plans, and offers at least two types of plans is higher in high-skilled firms. Predictable firm size differences exist: being a smaller firm (one having fewer than 50 workers) of either size (5–19 or 20–50) significantly lowers the probability of a firm offering ESI, having no wait time, and offering a choice in plans. It increases the probability that a firm restricts access to employees who work more than 30 hours a week. Smaller firms have an increased probability of paying at least 90 percent of the premium, however.

Perhaps the most striking finding about the ESI offer in the CHES data from 2005–2006 is the very large disparities that arise when differences as measured by workforce skills are superimposed on those as measured by firm size. Stark differences exist in the ESI offered to workers in small, low-skilled firms as compared to those offered to workers in large, high-skilled ones (Table 3.4). A 36-percentage-point difference exists in the 2005–2006 data between small, low-skilled firms and large firms when it comes to whether a firm offered ESI: 60.9 percent of small, low-skilled firms did, compared to 97.3 percent of large firms (irrespective of workforce skills). Access to the offer is also disparate: nearly a 16-percentage-point differential exists between the 70.5 percent of small, low-skilled firms that made employees work more than 30 hours a week before receiving an ESI offer and the 54.6

**Table 3.5 Multivariate Estimations of Access to and Quality of ESI Offer, by Workforce Skills and Firm Size**

| | | Access to offer | | | Quality of offer | | |
|---|---|---|---|---|---|---|---|
| | Offer | More than 30 hours required | No wait time | More than 3 months' wait | 90%+ firm-paid premium | At least 2 plans offered | At least 2 types of plans offered |
| Workforce skills | | | | | | | |
| Low-skilled firm | –0.094** | 0.087** | –0.040* | 0.088** | −0.005 | –0.060* | −0.050 |
| High-skilled firm | 0.000 | 0.062 | 0.079** | 0.038 | 0.168** | 0.077** | 0.085** |
| Size | | | | | | | |
| 5–19 workers | –0.220** | 0.062 | –0.099** | 0.080** | 0.241** | –0.324** | –0.282** |
| 20–50 workers | –0.135** | 0.157** | –0.131** | 0.066* | 0.118** | –0.098** | −0.056 |
| *N* | 1,405 | 1,200 | 1,205 | 1,205 | 1,015 | 1,208 | 1,195 |

NOTE: Observations were weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. Table shows the unstandardized coefficients from an ordinary least squares estimation of Equation (2.1) in Chapter 2. * significant at the 0.10 level; ** significant at the 0.05 level. Appendix C provides a description of all variables used in the estimations. Full results of the estimations, including coefficients on variables not presented in the table, are available from the author.

SOURCE: CHES (Maxwell 2007).

percent of large, high-skilled firms that did. Even greater differences exist in the time a worker must wait before receiving an offer: virtually no small, low-skilled firms offered workers ESI immediately upon employment, and over 30 percent of them made workers wait more than three months. In contrast, 35.7 percent of large, high-skilled firms extended an ESI offer immediately, and only 4.6 percent made workers wait for more than three months before receiving an offer.

The difference between small, low-skilled firms and large, high-skilled ones in the choice in ESI that a firm offered workers in the CHES survey is particularly striking: over a 50-percentage-point differential exists in whether firms offered a choice. Some 37.6 percent of small, low-skilled firms offered workers at least two different plans, and 31.7 percent offered them a choice in the type of plan. In stark contrast, 88.8 percent of large, high-skilled firms offered workers a choice in ESI plans, and 84.6 percent offered them a choice in the type of plan.

## SUMMARY AND DISCUSSION

Workers wanting ESI coverage can easily face a myriad of complications and obstacles in gaining it from their employer. Even if their firm offers health insurance, any particular worker may not be covered because the firm places eligibility restrictions on who can receive an offer. Prior to passage of the ACA, a firm generally could determine the restrictions it placed on workers who received an offer, as long as self-insured firms complied with the nondiscrimination rule and third-party-insured firms complied with the rules set by their insurers. From the workers' vantage point, the quality of the offer was critical: workers are more likely to take an ESI offer if the firm pays virtually all of the premium costs and if it offers them a choice in plans so they can select a plan that best suits their needs.

The ACA was designed to expand access to an ESI offer. Its potential to effect this change can be determined by establishing the extent to which a firm's ESI offer before the reform met the ACA requirements. Its potential to reduce disparities in the ESI offer can be determined by recording the disparities in the prereform period and identify-

ing whether the legislation was designed to change the behavior along those dimensions.

My analysis of the CHES data suggests that the ACA will affect virtually all firms. Some 56.5 percent of large firms in the CHES database did not meet the ACA requirements for covering workers in 2005–2006, and at least 95 percent of the largest-enrollment ESI plans of firms in the 2010 EHBS did not meet the ACA requirements for services covered, which is likely to affect the future cost of offering ESI.

Several points in my analysis suggest that the ACA might affect low-skilled firms more than high-skilled firms. First, a greater percentage of low-skilled large firms than high-skilled large firms did not meet the ACA requirements for coverage. Because the ACA requires large firms to meet its coverage requirements or potentially face financial penalties, low-skilled firms will be forced to change their behavior once these provisions are implemented, either by expanding the ESI offer to meet the requirements or, potentially, by paying penalties. Second, low-skilled firms are more likely to be large and subject to the ACA coverage requirements than are high-skilled firms, leaving a greater proportion of them to meet the ACA coverage requirements.

Because low-skilled large firms are more likely to be affected by the ACA, their probability of expanding coverage is greater than that of high-skilled large firms. Low-wage workers might therefore be more affected by the legislation than high-wage workers, as low-skilled firms are likely to employ a greater percentage of low-wage workers than are high-skilled firms. If these changes occurred in isolation from other changes, the ACA would have the effect of reducing some of the pre-reform ESI differences between low-wage and high-wage workers.

The CHES data suggest that large disparities existed in the pre-reform era between the offer a low-skilled firm made and one a high-skilled firm made. Both descriptive and multivariate statistics suggest that a firm's ESI offer—including the access to it and the quality of it—varied with both the skills of its workforce and the size of its workforce. In fact, the CHES data suggest that a 16.2-percentage-point differential existed in 2005–2006 between low-skilled and high-skilled firms in the percentage that offered their workers ESI (67.6 vs. 83.8 percent). Even if low-skilled firms offered ESI, the CHES data suggest that they provided a lower proportion of their workers with access to the

offer than did high-skilled firms. About two-thirds of low-skilled firms made employees work more than 30 hours a week, and slightly over one-quarter made them wait more than three months before receiving an ESI offer, which is nearly 10 percentage points higher than in high-skilled firms.

The CHES data suggest that workers in low-skilled firms that offered ESI received a lower-quality offer than workers in high-skilled firms. As a result, they might be less likely to take ESI when offered. About half (51.5 percent) of the low-skilled firms paid at least 90 percent of the ESI premium payment, compared to about three-quarters (74.3 percent) of the high-skilled firms. Furthermore, 44.3 percent of low-skilled firms offered workers a choice in plans (and 36.4 percent offered a choice in the type of plan), compared to the 57.9 percent of high-skilled firms that offered a choice in plans (and the 51.0 percent that offered a choice in the type of plan).

In short, the CHES data suggest that prior to active deliberations about the ACA, workers in low-skilled firms were disadvantaged with respect to an ESI offer over workers in high-skilled firms. They had less access to an offer and, when an offer was made, received a lower-quality offer. Particularly striking, however, were the disparities that existed when the differences by workforce skills and size were combined. Comparing the ESI offers of small, low-skilled firms to those of large, high-skilled firms revealed roughly a 36-percentage-point differential in the percentage that offered ESI (60.9 vs. 97.3 percent), a 16-percentage-point differential in the percentage that made employees work more than 30 hours per week before receiving an offer (70.5 vs. 54.6 percent), a 35-percentage-point differential between the percentage that did not make workers wait before receiving an offer (0.5 vs. 35.7 percent), and a 26-point differential in the percentage that made them wait more than three months (30.2 vs. 4.6 percent). A whopping 51-percentage-point differential existed in the percentage of firms that offered workers a choice in plans (37.6 vs. 88.8 percent).

The next two chapters explore how the ACA might affect these disparities in the ESI offer within the large-group (Chapter 4) and small-group (Chapter 5) markets, with a particular eye toward the differential effects that might occur for firms with different levels of workforce skills, and how those impacts might change these existing disparities.

## Notes

1. Research suggests that the ACA's exemption of small firms from the requirement to offer coverage might leave as many as half of the uninsured workers without coverage (Burkhauser and Simon 2007).
2. Incentives would reverse if the marginal cost of covering additional workers were to lie below the average cost of providing coverage (Maxwell 2011) and push the cost of making an additional ESI offer below the penalty.
3. The distinction between plans was discussed in Chapter 1. Bronze-level plans cover at least 60 percent of the actuarial value of the covered benefits, silver-level ones cover at least 70 percent, gold-level plans cover 80 percent, and platinum-level plans cover 90 percent.
4. "A highly compensated individual" belongs to one of three categories: he is either 1) one of the five highest-paid officers of the company, 2) a shareholder of 10 percent or more of company stock, or 3) among the highest-paid 25 percent of all employees (including the five highest-paid officers).
5. The estimate that 77.6 percent offered ESI circa 2006 is far higher than the 56 percent estimated for all California firms in the MEPS-IC in 2009 (Agency for Healthcare Research and Quality 2011) and the 69 percent estimated for U.S. firms with three or more workers in the EHBS in 2010 (Claxton et al. 2010). The differences most probably arise from the different definitions of firms used to compute the estimates. Because only 37.1 percent of MEPS-IC firms with fewer than 10 employees and 46 percent of EHBS firms with three to nine workers offered insurance, the MEPS-IC estimate of the offer for all firms would fall below the others and the EHBS estimate for firms with at least three workers would fall below the CHES estimate for firms with at least five workers.

# 4
# How Large Firms Might Respond to the ACA

The ACA has the potential to increase a firm's expenditures on ESI, as the popular press was quick to point out with respect to premium increases (e.g., Adamy 2010). Analyses presented in Chapter 3 suggest that costs will increase for at least the 55.4 percent of large firms that do not meet the legislation's requirements for covering workers and so must either expand their coverage to meet these requirements or potentially pay financial penalties. Chapter 3 also highlights potential premium increases that might be associated with meeting the ACA's requirements for new plans and the potential increase in workers taking up coverage, both because of the individual mandate to maintain essential health coverage and because of the ACA's rule that firms with more than 200 workers must automatically enroll (and stay) in a plan unless the worker explicitly opts out of coverage.

This chapter examines how large firms might change their ESI offer if the ACA increases their total expenditures on health care. It examines the actions that large firms took in the past when health care costs increased and extrapolates those actions into the period after the ACA is fully implemented. Because the CHES survey was fielded during a period in which the economy was fairly stable—prior to the Great Recession—and following a period in which health care costs had increased rapidly, the firms' self-reported changes to ESI reflect how firms changed their behavior when business strategies focused on rising health care costs. We anticipate such a period might follow the ACA's implementation.

## THE ACA AND INCREASING COSTS

The changes discussed in Chapter 3 that large firms will face when the ACA becomes fully implemented reflect only some of the cost

increases that might occur with the new legislation. The ACA could also alter risk pools for insurers in ways that increase their costs, increase the proportion of the contribution to premiums that a firm must make, and necessitate implementation of an excise tax on high-cost ESI. Each of these changes might increase health care expenditures for firms.

The fully implemented ACA alters an insurer's risk pool by expanding coverage to those that might have been ineligible for insurance and thus remained uninsured in the prereform period. Insurers will not be allowed to charge higher premiums based on health status and gender, to deny coverage for reasons such as preexisting conditions, or to rescind coverage, except in cases of fraud. Each of these actions helped insurers manage their risk pools with reduced adverse selection prior to the ACA. Restricting their ability to use these tools would lead to poorer risk pools and increased premiums as insurers attempt to recover the increased expenses incurred from providing coverage to individuals with a high expected usage of medical care. Although large firms are rarely assessed for risk in setting premiums, some of the provisions (e.g., preventing them from denying coverage for preexisting illness) will alter the type of plan they can offer.

The large firm's contribution to ESI premiums might increase if that firm does not meet the ACA's requirement for it to offer at least one plan for which the worker's premium contribution does not exceed 9.5 percent of the worker's household income. A survey of 2,800 firms by Mercer (2010) suggests that nearly two-fifths of large firms do not meet this requirement. Over 80 percent of firms not meeting the requirement said they will likely take steps to ensure that coverage is affordable to all workers eligible for ESI and either lower worker contributions or add a low-cost plan to their offering. Such actions will likely increase a firm's ESI expenditures as the firm acquires a greater proportion of premium payments with a corresponding reduction in worker payments or bears administrative expenses from offering an additional plan.

Finally, the ACA will impose a 40 percent excise tax on insurers or plan administrators (of self-insured plans) on the aggregate value of plans above a certain threshold. The tax, which is slated to begin in 2018, will likely be absorbed by the firm as higher premiums. The aggregate value of a plan, upon which the tax is based, includes the combined worker and employer contributions to premiums and any employer contributions to a health savings account, medical savings

account, or flexible spending arrangement but excludes dental and vision benefits. The high-cost thresholds are set at $10,200 for individual coverage and $27,500 for family coverage in 2018,[1] although they might be adjusted upward if the federal employee health benefits program premiums rise more than expected between 2010 and 2018. Thresholds will be indexed by inflation annually starting in 2020. The Mercer (2010) survey suggests that 39 percent of firms might face the 40 percent excise tax unless they make plan design changes. About 23 percent of large firms have said they will do whatever is necessary to bring costs below the threshold amounts for computing the excise tax.

The CBO (2009) estimates that ESI premiums will increase 27 to 30 percent for firms but that the plans offered will contain an enhanced level of health care coverage. Legislators were aware of the potential of these provisions to increase premiums and included provisions in the ACA to offset such increases. Key provisions include an annual review of premium increases by states, restrictions on the way premiums can be spent, and requirements to improve an insurer's risk pool. Let us look closer at the first of these key provisions just mentioned, the annual review. The ACA developed a process in which states are required to annually review premium rates for all fully insured health care insurance plans to ensure that none are "unreasonable." Regulators could deny rate increases found to be unreasonable or not allow the policies to be sold in the exchanges.

Furthermore, the ACA requires insurers to offer rebates to enrollees if their health plan spent less than 85 percent of their premium on medical care or activities in the large-group market. States are free to increase the percentage—they can say, for example, that 90 percent of the policy must go toward medical care. Self-insured plans are exempt. The goal of this provision is to reduce expenditures on administrative overhead and marketing and put downward pressure on premiums. Finally, the ACA requires most U.S. citizens to carry minimal essential health insurance coverage starting in 2014. This requirement was specifically designed to draw previously uncovered healthy individuals into the health insurance market and offset the worsened quality of the insurer's risk pool owing to the limitation that the legislation sets on an insurer's ability to exclude unhealthy individuals from pools.

Predictions about ESI premium prices and coverage differ tremendously, in part because they must contain different assumptions about

how firms and insurers will respond to legislative changes. Will ESI premiums increase with the new benefit requirements in plans and the excise tax, or will they decrease with the administrative review of premium increases and limitations on nonmedical care expenses? Will risk pools become worse given the inability of insurers to deny coverage and their limited ability to vary the premiums charged, or will they improve because of the individual requirement to carry insurance? Will large firms expand ESI as a result of the legislative changes or will they brave potential penalties?

The CBO (2009) estimates that when all provisions of the ACA are considered, premiums and coverage will change little in the large-group market, according to a letter CBO Director Douglas Elmendorf sent to House Speaker Nancy Pelosi in March 2010. The Urban Institute (Buettgens, Garrett, and Holahan 2010) concurs, predicting little change in coverage, but the RAND Corporation (Eibner, Hussey, and Girosi 2010) predicts a large (8.7 percent) net increase in ESI coverage, and Holtz-Eakin and Smith (2010) predict large decreases (22.3 percent).[2] Of note, none of the studies explicitly included in their assumptions the potential changes in a firm's total expenditures on health care that might result from its offering coverage to more workers.

I argue that the plethora of ways in which the ACA might affect large firms will increase a firm's total ESI expenditures. The legislation has the potential to do four things: 1) increase the number of workers covered, 2) extract penalties, 3) increase the premiums charged, and 4) increase the proportion of the premium a firm pays. While states might slow premium increases through the annual review process, not all states have the capacity to conduct such reviews (Kaiser Family Foundation 2010a) and, in the past, have rarely rigorously denied premium increases under such reviews. I therefore posit that the ACA has the potential to increase both premiums and coverage—the two key components of ESI expenditures—and base my predictions about changes in coverage on how firms will respond to expenditure increases.

The CHES data allow us to assess how a large firm might respond to ACA-induced health-care cost increases by examining the actions firms that offered ESI said they took when health care costs increased in the past. The CHES asked firms about how they responded to health-care cost increases in the three-to-five-year period prior to the survey's fielding in 2005 and 2006. During this period, the compound growth in

health insurance premiums stood at 114.1 percent, as compared to a 29 percent growth in earnings and a 24.3 percent growth in prices (Figure 1.1, Chapter 1). We are not arguing that the ACA will increase costs at the same rate as premium increases in the past. Rather, we are arguing that the past cost increases were so noticeable that firms took strategic actions in response and that these responses might be similar to the ones they would take if the ACA increases ESI expenditures in the future.

CHES surveyors asked respondents, "Because health care costs have risen in the past few years, we are interested in getting your impressions of what your firm has done in the past three to five years about escalating health care costs. We would like you to answer 'Yes' to our question if you think the action we mention is one your firm has taken and 'No' if it has not . . . 'In response to rising health care costs, did your firm decrease or eliminate . . . ?'" Respondents could answer with one or more of the following: health insurance coverage (e.g., services like pharmaceuticals), non-health benefits (e.g., pensions, vacations), vision insurance, dental insurance, other health-related coverage (e.g., substance abuse, mental health), number of plans offered, or variety of plans offered. Surveyors also asked, "In response to rising health care costs, did your firm . . . ?" Respondents could choose one or more of the following: change health insurance carriers, start a health reimbursement arrangement, start a flexible spending account, move to a high-deductible plan, contribute to a worker's health savings account, or increase either the premium the worker had to pay for single worker health coverage, the premium paid for family coverage, or the copayment/coinsurance payments. Surveyors also asked the following: "Health care costs can impact different things other than health benefits. In response to rising health care costs, did your firm . . . ?" Possible responses included increase its prices (or reduce its services), give fewer raises or reduce wages, increase the hours a week worked or length of time a worker must be with the firm before receiving benefits, or use more workers not eligible for benefits in response to increased health care costs.[3]

## LARGE FIRMS' BEHAVIOR AS A RESPONSE TO INCREASING COSTS

How firms respond to increasing ESI expenditures is of great concern to policymakers, consumers, and workers, since their actions might lead to consequences that policymakers regard as undesirable. Policymakers hope the law will increase coverage in the private—not the government—sector; consequently they worry that firms will drop ESI with cost increases. Legislators designed provisions that contain penalties to inhibit large firms from dropping ESI if health care costs increase. The Mercer (2010) survey found that about 6 percent of firms with 500 or more employees and about 20 percent of firms with 10 to 499 employees said they are likely to terminate their health plans after 2014, by which time most of the ACA provisions will be in place. This suggests that the incentives might be at least somewhat effective. Mercer's findings are consistent with Marquis and Long's (2001) research showing that relatively few firms discontinue ESI when costs increase.[4]

Policymakers and consumers might also worry that increased compensation costs will push prices up. Market forces in competitive markets could increase prices as all large firms face the same ACA-induced ESI cost increases and as forces in noncompetitive markets allow large firms to pass increased costs on to consumers in the form of increased product prices. CHES data show that about 21 percent of large firms said they increased prices or decreased services when health care costs increased in the past; this suggests that price increases might occur in about one-fifth of large firms after the ACA is implemented.

How firms respond when ESI expenditures increase is also of great interest to workers. While workers might worry about a general rise in prices, they are also likely to worry about how the increased cost of ESI will change the composition of their compensation. Dropping ESI is a somewhat radical change, as discussed above, and firms might be more likely to engage in less radical actions, as is consistent with the marginal analysis of offering ESI that was discussed in Chapter 2.

Rosen (1986) formalized the potential trade-off benefits as nonpecuniary components of worker compensation in a theory of compensating differentials. The theory argued that benefits and wages are

traded so that a firm increases expenditures on benefits and reduces expenditures on wages until its workers remain indifferent (at the margin) when evaluating compensation packages as a whole. The result is that profit-maximizing firms will keep compensation costs competitive and trade monetary and nonmonetary benefits in compensation, while utility-maximizing workers trade benefits for wages in accepting the compensation offer. It follows that increasing expenditures on one component of compensation will decrease expenditures on others.

The compensating differentials framework suggests that the actions firms will take if ACA increases ESI costs fall into three general strategies: 1) reduce wages or employment, 2) reduce the quality of the ESI plan or offer, and 3) reduce other benefits. All are strategies that the 80 percent of firms that do not increase product prices could undertake to keep compensation costs at the same level when their health care costs rise.

We expect the strategy that a firm adopts will vary systematically with the skills of its workforce as workers sort—or re-sort—themselves toward the firm offering the compensation package that most closely matches their preferences. Of course, the nondiscrimination rule—which was expanded under the ACA—will constrain the firm to adopt a firm-wide strategy in recalibrating the compensation, and it becomes the role of the typical worker with desired skills to set the strategy adopted for the trade-off. Because of this, high-skilled firms might be less likely than other firms to select a strategy that reduces benefits, and low-skilled firms might be less likely to select a strategy that reduces wages. Because high-wage workers, who are likely to be high-skilled workers, place a high value on nonwage compensation, the marginal worker in a high-skilled firm is likely to want to retain benefits. In contrast, low-wage workers, who are likely to be low-skilled workers, place a high value on wage compensation, suggesting that the marginal worker in a low-skilled firm is likely to want to retain real wages. As a result, high-skilled firms might be less likely to reduce benefits when ESI expenditures increase than other firms, while low-skilled firms might be less likely to reduce real wages. The Mercer (2010) survey results support these propositions, as firms with low-paid workers and high turnover were the most likely to say they would eliminate ESI after 2014.

**Reduce Wages or Workforce Access**

Firms might decide to restructure wages and employment when faced with increased ESI expenditures (Abraham and Voos 2008; Baicker and Levy 2007). If wages are flexible, firms might reduce real wages by slowing the growth of wage increases or by hiring new workers on a lower pay scale. Aggregate numbers support such a trade-off (Table 4.1). In 2010, ESI made up about 7.5 percent of employers' per-hour compensation costs, an increase from 6.2 percent in 1995. During that same period, wages decreased as a percentage of compensation costs (from 71.6 to 70.8 percent).

The wage-ESI trade-off is the most-researched response to increased health care costs. Empirical examinations of this trade-off frequently involve estimating wage regressions; measures of ESI are included on the right-hand side, and a negative coefficient is interpreted as evidence supporting the trade-off. While a few studies have supported such a trade-off (e.g., Gruber 1994; Olson 2002), the collective empirical research evidence is inconclusive at best. Indeed, an oft-cited quotation summarizes this body of research nicely: "The empirical validity [of the wage-ESI trade-off] has been difficult to establish. The typical estimates are either wrong-signed, insignificant, or both. The literature has thus focused not on the magnitude of the wage–health insurance trade-off, but on the reasons why economists cannot find evidence that there is one" (Currie and Madrian 1999).

At least two explanations have been posed for the failure of the empirical evidence to support a wage-ESI trade-off. Most explanations hinge on some source of unobserved (to the researcher) heterogeneity in the worker (e.g., skills or ability) or in the firm (e.g., working conditions) that increases both wages and ESI. Presumably, if the researcher could control completely for the skill levels (for example) of workers and jobs, the theoretically predicted trade-off would emerge. Another explanation argues that the trade-off does not occur at the individual level, which is the unit of analysis of most empirical research, but instead occurs at a more aggregate level such as the firm (Maxwell 2011). The CHES poses that the trade-off occurs at the firm level and asked firms directly if they gave fewer raises or reduced wages when health care costs rose.

**Table 4.1 Private-Sector Employer Per-Hour Costs for Employee Compensation, 1986–2010**

| | 1986 | 1990 | 1995 | 2000 | 2005 | 2010 |
|---|---|---|---|---|---|---|
| Total compensation ($) | 13.25 | 14.96 | 17.10 | 19.85 | 24.17 | 27.42 |
| % wages and salaries | 73.0 | 72.4 | 71.6 | 73.0 | 71.0 | 70.8 |
| % benefits | 27.0 | 27.6 | 28.4 | 27.0 | 29.0 | 29.2 |
| % legally required benefits | 8.4 | 9.0 | 9.3 | 8.4 | 8.7 | 8.2 |
| % insurance[a] | 5.5 | 6.1 | 6.7 | 6.0 | 7.3 | 8.0 |
| % paid leave | 7.0 | 6.9 | 6.4 | 6.4 | 6.4 | 6.8 |
| % retirement and savings | 3.8 | 3.0 | 3.0 | 3.0 | 3.7 | 3.5 |
| % supplemental pay | 2.3 | 2.5 | 2.8 | 3.0 | 2.8 | 2.7 |
| % other benefits | 0.1 | 0.0 | 0.2 | 0.2 | 0.2 | — |
| % health insurance | — | — | 6.2 | 5.5 | 6.8 | 7.5 |

NOTE: — = data not available.

[a] "% insurance" includes payments for insuring against loss or harm to one's person, property, life, etc., while "% health insurance" includes payments for insuring against medical and surgical expenses. Categories under "% benefits" may not sum to total because of rounding.

SOURCE: EBRI (2010).

If wages are rigid (e.g., as in a unionized pay scale), increasing ESI expenditures might decrease overall employment or shift tasks from labor to capital as the relative price of labor increases. Firms might swap out workers eligible for ESI in favor of those that do not have access to an offer (e.g., those working fewer than 30 hours per week after the ACA). In support of this theory, Baicker and Chandra (2006) show that a 10 percent increase in premiums reduced the aggregate probability of employment by 1.2 percent, reduced hours worked by 2.4 percent, and increased the likelihood of part-time employment by 1.9 percent. One way that firms might reduce "employment" is to tighten their eligibility requirements and further restrict who gets an ESI offer. Of course, this option will only be available if the firm's requirements are less strict than the ACA's floor for hours worked or tenure. CHES data suggest that about 34 percent of large firms met both the hours and tenure requirements and were less restrictive in at least one of them, which would permit them to adopt a strategy of restricting their access when ESI costs increase. The CHES data allow us to examine the trade-off between ESI and workforce access to ESI by asking firms if they

reduced their workforce, increased the number of workers not eligible for benefits, or increased the months or hours needed to receive health benefits when health care costs increased.

**Decrease Quality**

Increased ESI expenditures might lead firms to reduce the quality of ESI (Royalty and Hagens 2005) in order to keep the total health care expenditures relatively constant. While an ACA requirement restricts firms' ability to reduce the quality of plans (e.g., in services covered), the ACA affords more flexibility in reducing the quality of the offer. Firms can change the type of plan offered (e.g., from PPO to HMO), reduce the worker's choice in plans, change to a lower-cost carrier (which presumably would lower overall quality), or increase the cost of the coverage for workers by increasing premium payments or cost-sharing for things like sick-visit care. Increasing the price for workers might be a particularly attractive option for firms, since few workers respond to changes in the price of insurance (Barringer and Mitchell 1994; Blumberg, Nichols, and Banthin 2001; Royalty and Hagens 2005), although large firms must be conscious of the potential for penalties if workers become eligible for premium subsidies in the exchanges.

The CHES data allow us to examine the potential for a decrease in the quality of the ESI offer because the survey asked firms about the types of ESI plans they offered workers before ACA reform was being actively discussed, and because it asked detailed questions about the plan that most workers selected, including the worker's monthly payment for single coverage, the percentage of the premium the firm paid, the copayment or coinsurance for a doctor visit, and the copayment or coinsurance for a generic prescription. The CHES also asked firms about changes they had made to the ESI offer when health care costs rose in the past; their responses can be used to capture the answers to the following two questions: 1) whether they changed offer quality, including whether they increased the amount a worker pays for single worker health coverage or family coverage, and 2) whether they increased copayments or coinsurances, changed health insurance carriers, or decreased the number or variety of health plans offered.

### Reduce Benefits Other than ESI

Although most of the research examining compensation trade-offs with ESI focuses on wages, firms might also trade ESI for other benefits. After all, ESI is but one of the many types of voluntary compensation that could be traded for wages (Table 4.1). On the one hand, replacing ESI with other benefits might be an attractive alternative if the benefits' favorable tax treatment for both individuals and firms makes the substitution tax-neutral (Table 4.2).[5] On the other hand, firms might be reluctant to trade ESI for other benefits for a couple reasons. First, if other benefits are taxed as wages, workers might require a greater-than-dollar-for-dollar trade for equivalent compensation payments. Second, some benefits provide the firm with information about workers during the recruiting stage, and such information would be lost if the benefits are eliminated because of increased ESI costs.[6]

The CHES data contain information on whether a firm offered 22 different benefits that are not included in its ESI plan and are not required by the state or federal government. I analyzed the potential trade-offs of the 10 benefits that require a firm to make a monetary outlay of funds during the worker's stay with the company and are not monetary compensation (e.g., shift premium and bonuses): 1) vision, 2) dental, 3) life, 4) long-term disability, 5) long-term health, and 6) retiree-health insurance; 7) paid vacation; 8) paid holidays; 9) paid sick leave; and 10) pension.[7] The CHES also asked whether firms decreased health insurance coverage, non-health benefits, vision insurance, dental insurance, or other health-related coverage when health care costs rose.

## PAST BEHAVIOR AND POTENTIAL INCREASED HEALTH CARE COSTS

By juxtaposing behavioral changes stemming from health-care cost increases in the past with prereform levels of ESI and other benefit offerings, we can predict the changes that might occur if ESI expenditures increase. We can also predict how the changes might alter prereform ESI disparities between low-wage and high-wage workers by compar-

**Table 4.2 Tax Incentives for Various Types of Benefits, and Percentage of Firms Offering Them, 2005–2006**

| | Tax benefits for firms (as compared to wages) | Tax benefits for individuals (as compared to wages) | Percentage offering | | |
|---|---|---|---|---|---|
| | | | Total | Low-skilled | High-skilled |
| ESI | Excluded from payroll tax | Tax-exempt | 97.6 | 97.3 | 97.3 |
| Paid time benefits | | | 98.9 | 98.9 | 98.4 |
| Paid vacation | Taxed as wages | Taxed as wages | 96.0 | 94.4 | 96.5* |
| Paid holidays | Taxed as wages | Taxed as wages | 94.7 | 91.2 | 97.5** |
| Paid sick leave | Taxed as wages | Taxed as wages | 85.3 | 79.7 | 93.4** |
| Supplemental health benefits | | | 94.3 | 91.9 | 96.6** |
| Dental | Excluded from payroll tax | Tax-exempt | 84.2 | 84.3 | 90.4** |
| Life insurance | Excluded from payroll tax | Tax-exempt | 80.5 | 72.9 | 87.2** |
| Long-term disability (wage replacement) | Excluded from payroll tax | Tax-exempt | 66.3 | 56.5 | 82.8** |
| Vision | Excluded from payroll tax | Tax-exempt | 59.7 | 58.2 | 60.5 |
| Long-term health benefits | | | 23.8 | 24.1 | 20.0* |
| Long-term health care (e.g., nursing home) | Excluded from payroll tax | Tax-exempt | 15.4 | 15.1 | 13.0 |
| Retiree health | Excluded from payroll tax | Tax-exempt | 12.4 | 10.9 | 11.4 |
| Pension | Excluded from payroll tax | Tax-deferred and no payroll tax | 87.7 | 85.4 | 95.6** |
| *N* (unweighted) | | | 725 | 268 | 165 |

NOTE: Columns show the percentage of firms in each category that offer the benefit. For the worker, tax-exempt means that the premium (for example) is not subject to income or payroll tax. Life insurance was tax-exempt only for term insurance of $50,000 or less at the time the survey was in the field. Observations were weighted so that the distribution of the sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

ing differences between low-skilled and high-skilled firms in their pre-reform levels of ESI and in their responses to increases in health care costs in the past. For example, if high-skilled firms were more likely to offer a wide array of benefits than low-skilled firms prior to the ACA and were less likely to reduce them when health care costs increased, we would predict that the disparity in the offer of benefits between low and high-skilled firms might increase if the ACA increases ESI costs, since high-skilled firms retain their high level of benefit offerings and low-skilled firms reduce them. I use means and frequency distributions to describe the behaviors of firms prior to the ACA. The description is presented in the aggregate for all firms and disaggregated for low-skilled and high-skilled firms. A *t* test allows us to identify significant differences between low- and high-skilled firms in descriptive analysis.

Descriptive analysis would quickly become overwhelming if we examined each of the 10 benefits other than ESI individually. Furthermore, benefits often fall into categories that firms are likely to offer, and these categories would facilitate interpretation of their (potential) trade-offs with ESI. I use a factor analysis to identify these groupings (Appendix B presents details). This analysis identifies four distinct bundles of benefits that explain about 63 percent of the variance in the benefits firms offered: 1) paid time benefits (vacation, holidays, and sick leave), 2) supplemental health benefits (dental, life, long-term disability, and vision insurance), 3) long-term health (long-term health care and retiree health), and 4) pensions.

I conceptualized a strategy that a firm adopts when health care costs increase—one in which the firm takes a closely related set of actions. Our discussion of past research suggests that three strategies might describe firms' behavior when health care costs rise: firms can concentrate on saving money by altering 1) wages and access, 2) the quality of the offer, and 3) other benefits. I use a factor analysis on the CHS data to validate the three strategies. This analysis, which is also described in detail in Appendix B, identifies five groupings of behaviors that overlap substantially with our categorization of strategies: firms look to save money by adjusting 1) benefits, 2) the worker price of ESI, 3) the quality of the plan, 4) workforce costs, and 5) access. These five factors explained about 56 percent of the variance in the actions firms took when health care costs increased.

Two separate factors capture my wage and employment access strategy (workforce costs and access to benefits). One contains the actions of giving fewer raises or reducing wages, reducing the workforce, and increasing the number workers not eligible for ESI; the other contains the actions of increasing the number of months of tenure or the number of hours worked per week needed to receive ESI. Together, these two factors explained about 18.7 percent of the variance in the actions that firms took when health care costs increased.

Two separate factors identify my quality-of-the-ESI-offer strategy: 1) worker price of ESI and 2) ESI choices. The first contains the actions of increasing the amount the worker paid for family coverage and the amount paid for single coverage, and the second contains the actions of decreasing the variety of ESI offered and the number of ESI plans offered and changing carriers. These two factors explain about 21.7 percent of the variance.

A single factor captures my benefits strategy, and this factor explains about 27.9 percent of the variance. Actions contained in this strategy include decreasing dental insurance, vision insurance, non-health benefits, or other health-related coverage.

The general alignment of my factor loadings with the three *a priori* research categorizations, in combination with the relatively high proportion of variance explained in individual actions firms took when health care costs rose, provides support for my using the three categories of strategies to describe firms' responses to rising health care costs.

I use an ordinary least squares (OLS) analysis to examine the differences between low- and high-skilled firms in each of these three strategies. I quantify a strategy as the number of actions a firm takes within each of the three strategies. I use this number within each strategy as a dependent variable in an OLS analysis that contains only two binary measures as independent variables: 1) whether a firm employed a majority of high-skilled workers or 2) whether it employed a majority of low-skilled ones.[8]

My intent with these estimations is to capture whether low-skilled and high-skilled firms adopted different strategies when health care costs increased in the past. It is not to model the behavior of firms. By including only measures of workforce skills in my estimations, the correlations captured by my coefficients allow for a more straightforward discussion of the implications of increased health care costs for

low-skilled and high-skilled workers than would be the case with coefficients estimated from a fully specified model of firm behavior. For example, if the coefficient on the high-skilled variable was positive and the coefficient on the low-skilled variable was negative or insignificant in the estimation of the number of actions taken in the strategy of reducing the quality of the ESI offer, the results would suggest that high-skilled firms were more likely than other firms to adopt this strategy when health care costs increased. If high-skilled firms had a higher quality of ESI offer prior to health care costs rising than low-skilled firms, I would presume that the quality of the offers of high- and low-skilled firms would converge with increased health care costs. If the estimation was fully specified, my assessment of a convergence would be less straightforward, as the associations would hold in a world where all else was equal.

**Cut Back on Wages or Workforce Access**

Nearly 20 percent of all large firms took one of the actions in the strategy of reducing wages or employment access when health care costs increased (Table 4.3). About 10.3 percent gave fewer raises or reduced wages, 6.3 percent reduced the size of their workforce, and 3.0 percent replaced workers eligible for coverage with those who were ineligible when costs increased. Low-skilled firms were more likely than high-skilled firms to give fewer raises, reduce wages, or increase the number of workers ineligible for benefits, but they were not more likely to reduce the workforce. OLS estimations confirm that high-skilled firms are less likely to take actions in this strategy when health care costs increase, with a significant coefficient on the high-skilled variable of –0.140 (Table 4.4). This finding suggests that differences exist between low- and high-skilled firms in adopting a strategy of reducing wages or workforce access when health care costs increase.

CHES data show that relatively large disparities existed in access to the ESI offer between low- and high-skilled firms prior to the heated discussions that took place in Congress—and in the public at large—about the ACA (Table 4.5). Arguably, the most telling difference lies in a firm's ability to meet the ACA requirements. Some 62.1 percent of large firms with low-skilled workforces, and 58.0 percent of those with high-skilled workforces, did not meet the ACA hours and tenure

**Table 4.3 Large-Firm Responses to Rising Health Care Costs, 2005–2006**

| | All | Low-skilled | High-skilled |
|---|---|---|---|
| Percentage taking one action below | 77.4 | 68.4 | 87.1** |
| Wages and access | 19.2 | 21.2 | 13.0** |
| Workforce costs | 13.9 | 16.6 | 10.0** |
| Give fewer raises or reduce wages | 10.3 | 13.2 | 6.5** |
| Reduce workforce | 6.3 | 5.3 | 5.8 |
| Increase workers not eligible for benefits | 3.0 | 5.7 | 1.2** |
| Access to benefits | 7.1 | 6.2 | 3.5** |
| Increase months to receive benefits | 5.9 | 4.7 | 2.4** |
| Increase hours to receive benefits | 2.1 | 2.3 | 1.1** |
| Quality of ESI offer | 69.7 | 60.3 | 80.0** |
| Worker price of ESI | 69.2 | 53.5 | 73.6** |
| Increase worker payment for single coverage | 41.1 | 33.5 | 59.2** |
| Increase worker payment for family coverage | 37.2 | 32.7 | 49.3** |
| Increase copayment or coinsurance | 35.9 | 32.2 | 29.9 |
| ESI choice | 31.6 | 25.1 | 40.9** |
| Change health insurance carriers | 26.2 | 19.5 | 36.2** |
| Decrease variety of health plans | 10.8 | 10.0 | 10.2 |
| Decrease number of health plans | 7.0 | 5.0 | 9.1** |
| Benefits | 11.2 | 13.0 | 5.6** |
| Decrease health insurance coverage | 8.3 | 7.9 | 5.3 |
| Decrease non-health benefits | 3.3 | 3.1 | 1.0 |
| Decrease vision insurance | 3.0 | 4.2 | 2.2 |
| Decrease dental insurance | 2.8 | 4.3 | 1.3** |
| Decrease other health-related coverage | 2.3 | 1.7 | 2.1 |
| Increase prices of products | 20.9 | 18.6 | 15.1** |
| *N* (unweighted) | 725 | 268 | 165 |

NOTE: Row headings complete the question posed to firms offering health insurance: "In the past 3 to 5 years, in response to rising health care costs, did your firm . . . ?" ** significant at the 0.05 level. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry.

SOURCE: CHES (Maxwell 2007).

**Table 4.4 Coefficients of Large-Firm Responses to Rising Health Care Costs by Low- and High-Skilled Firms, 2005–2006**

| | Wages and access | Quality of ESI offer | Benefits |
|---|---|---|---|
| Low-skilled firm | 0.007 | –0.193 | –0.001 |
| High-skilled firm | –0.140** | 0.387** | –0.110* |
| Mean dependent variable | 0.267 | 1.604 | 0.188 |
| Range | 0–5 | 0–6 | 0–5 |
| *N* (unweighted) | 667 | 658 | 676 |

NOTE: Questions were only asked of firms that offered ESI. The table shows the unstandardized coefficients from an estimation of large firms, with each dependent variable reflecting the number of actions taken in each strategy (see Table 4.3 for details) and the two binary variables as dependent variables. Appendix C provides a full definition of all empirical constructs used in the estimations. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

requirements in 2005–2006, which suggests that as many as five out of eight low-skilled large firms, many of whom are low-wage, will have to increase their ESI coverage of workers or face potential financial penalties.

Although the CHES data suggest that about one-third of large firms exceeded the ACA's coverage requirements (i.e., required fewer than 30 hours per week of work or fewer than three months' tenure for coverage) and could adopt a strategy that reduces access to ESI after the ACA is fully implemented, a much smaller percentage of low-skilled than high-skilled firms will be able to adopt this strategy. About 26.7 percent of low-skilled but 35.7 percent of high-skilled firms had coverage requirements that were less restrictive than those required by the ACA (Table 4.5). Such differences might be superfluous, however, since only about 6.2 percent of low-skilled and 3.5 percent of high-skilled firms increased hours or tenure requirements when health care costs increased in the past (Table 4.3).

**Table 4.5 Prereform Behaviors of Large Firms That Offer ESI, 2005–2006**

| | Total | Low-skilled | High-skilled |
|---|---|---|---|
| Wages and access | | | |
| % not meeting ACA hours and tenure requirements | 55.4 | 62.1 | 58.0* |
| % exactly meeting ACA hours and tenure requirements | 10.7 | 11.2 | 6.4** |
| % with greater access than ACA requirements | 33.9 | 26.7 | 35.7** |
| Quality of offer | | | |
| % that offer more than one plan | 71.2 | 62.4 | 88.8** |
| % that offer more than one type of plan | 60.5 | 49.1 | 84.5** |
| Price of ESI for workers | | | |
| Worker monthly payment, single coverage ($) | 46.40 | 50.30 | 38.40** |
| Average % premium paid | 15.5 | 14.8 | 10.5** |
| Copayment or coinsurance | | | |
| Average copayment for doctor visit ($) | 16.80 | 18.00 | 13.20** |
| Average % for coinsurance for doctor visit | 15.6 | [a] | [a] |
| Average copayment for generic prescription ($) | 11.90 | 12.20 | 10.40** |
| Average % for coinsurance for generic prescription | 20.1 | [a] | [a] |
| *N* (unweighted) | 725 | 268 | 165 |

NOTE: Table includes only large firms that offered health insurance. Item-specific nonresponse reduced the number of respondents greatly in the "Price of ESI for workers" variable. Non-health benefits include retirement, life insurance, paid vacation, holidays, and sick leave. Other health-related benefits include mental health/substance abuse, long-term health insurance, and long-term disability, all of which are separate from the health insurance plan. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level. Totals may not sum to 100.0% because of rounding.

[a] Indicates the cell contains fewer than 20 firms (other cells have at least 35 firms).

SOURCE: CHES (Maxwell 2007).

**Reduce the Quality of the Offer**

CHES data show a large difference between low- and high-skilled firms in the quality of ESI offered to workers in 2005–2006 (Table 4.5). A larger percentage of high-skilled large firms made workers a higher-quality offer than did low-skilled large firms. This difference was captured in each of the eight measures of quality contained in the CHES. High-skilled firms were nearly one-and-a-half times more likely to offer workers a choice of health care plans than were low-skilled firms (88.8 vs. 62.4 percent). The price workers paid for ESI also differed. Workers at high-skilled firms paid about $38 per month (or about 10.5 percent of the premium) for the plan that most selected, while those at low-skilled firms paid about $50 per month (or about 14.8 percent of the premium). Workers in high-skilled firms paid, on average, about a $13.20 copayment for a doctor visit and $10.40 for a generic prescription, while workers in low-skilled firms paid about $18.00 for a doctor visit and $12.20 for a prescription.

CHES data suggest that when health care costs increase, the differences in the quality of the ESI offer between low- and high-skilled large firms might converge. High-skilled firms were about one-third more likely to take an action that reduced the quality of the ESI offer than low-skilled firms (80 percent vs. 60 percent), as shown in Table 4.3. When firms reduced quality, both low- and high-skilled firms tended to increase the amount a worker paid for coverage; however, high-skilled firms tended to be more proactive than low-skilled firms in taking the actions. Nearly 74 percent of high-skilled firms but only about 54 percent of low-skilled firms increased the worker price of ESI when health care costs rose, and nearly 60 percent of high-skilled firms but only about 33 percent of low-skilled firms increased the price workers paid for single coverage. Relatively fewer firms of each type changed carriers, which presumably reduced both cost and quality, when health care costs increased (about 36 percent of high-skilled and 20 percent of low-skilled firms).

OLS estimations confirm that high-skilled firms are significantly more likely than other firms to adopt a strategy of reducing the quality of the ESI offer when health care costs increase; these estimations show a significant coefficient on the high-skilled variable of 0.387 (Table 4.4). Because high-skilled firms are more likely than low-skilled firms

to extend a good-quality ESI offer before cost increases and more likely to adopt a strategy of reducing the quality of that offer when health care costs increase, our analysis points to a convergence in the quality of the ESI offer between low- and high-skilled firms if the ACA leads to ESI costs increases.

**Decrease Benefits**

My descriptive analysis of the benefits firms offered in 2005–2006 shows a large variation in the percentage of firms that offered each of the four groups of benefits, although the variation does not appear to be related to the tax treatment of the benefit (Table 4.2). Virtually all firms offered paid time benefits, even though neither the firm nor the individual receives a tax advantage on offering or accepting benefits as compared to wages. Furthermore, even though firms can exclude retiree health and long-term health care premiums from their payroll tax base and workers do not pay income or payroll taxes on receiving paid-up premiums as compensation, fewer than 16 percent of firms offered them as benefits.

The seeming lack of association between taxes and offered benefits highlights the possibility of a firm offering benefits in accordance with the preferences of its workers. My descriptive analysis supports this conclusion by showing that a greater percentage of high-skilled firms offered benefits within each group except long-term health insurance. A greater proportion of high-skilled than low-skilled firms offered paid vacation, holidays, and sick leave, although over 98 percent of each type of firm offered at least one of those benefits. About 97 percent of high-skilled firms offered supplemental health benefits, compared to about 92 percent of low-skilled firms; the largest differences (about 15 percentage points) lay in the higher proportion of high-skilled firms offering life insurance and long-term disability. Almost 96 percent of high-skilled large firms offered worker pensions, which was over 10 percentage points higher than for low-skilled firms. Relatively few differences existed between low- and high-skilled firms in the percentage offering long-term health benefits.

Differences also existed in the percentage of low- and high-skilled firms that took actions that reduced benefits when health care costs increased in the past. Although about 11 percent of all firms reduced at

least some benefits when health care costs increased, low-skilled firms were about twice as likely as high-skilled firms to take one of these actions (Table 4.3). About 13 percent of low-skilled firms and only 5.6 percent of high-skilled firms decreased health care coverage, non-health benefits, dental insurance, vision insurance, or other health-related coverage when health care costs increased. The OLS estimation confirms the difference between low- and high-skilled firms in adopting the strategy of reducing benefits; it shows a significant ($p \leq 0.10$) coefficient on the high-skilled variable of –0.110 (Table 4.4). Because high-skilled firms were more likely to offer benefits than low-skilled firms and less likely to reduce them when health care costs increased, ACA-induced increases in ESI costs might increase the disparity between low- and high-wage workers in non-ESI benefits offered.

## SUMMARY AND DISCUSSION

The ACA has the potential to increase the cost a large firm incurs when it provides ESI to its workers. Some large firms might need to expand coverage to comply (or pay financial penalties). Some might need to pay increased premiums for the coverage they offer or to pay an increasing proportion of the premium. In 2005–2006, over 56 percent of large firms did not meet the ACA's requirement to offer ESI to all employees who work at least 30 hours a week and have three months of tenure with the firm. These firms will face increased ESI costs as they expand coverage to meet the ACA requirements or potentially pay penalties. Firms might also face premium increases to bring their plans into conformity with the ACA's expanded coverage requirements (e.g., dependents remaining on ESI at least until age 26), with its established levels of minimum benefits, and with its limitations on out-of-pocket expenses, since it is likely that insurers will raise premiums to cover the increased costs from these additional requirements. Premiums will also increase for the 39 percent of firms whose plans are projected to exceed the threshold for invoking a 40 percent excise tax. Finally, because the ACA requires large firms to offer at least one plan for which worker premium contributions do not exceed 9.5 percent of household income,

some firms may increase their portion of the contribution or face potential penalties.

The CHES data provide an opportunity to predict how the changes firms might make will affect worker compensation and disparities between low-wage and high-wage workers. The data provide information on the benefits large firms offered prior to the extensive discussions in society and Congress about health care reform and how large firms have responded to rising health care costs in the past. By examining the changes these firms made in response to rising health care costs in the context of their ESI offer and offer of other benefits, we can surmise changes that might occur with the ACA. My analysis looked at three general areas in which worker compensation might be reduced with ESI cost increases: 1) wages or employment access, 2) quality of ESI offer, and 3) other benefits.

The CHES data suggest that large disparities existed between low- and high-skilled firms in each of these areas in 2005–2006. A higher percentage of high-skilled than low-skilled large firms met the ACA's coverage requirements, which suggests a greater need to expand coverage (or pay penalties) in low-skilled firms. When high-skilled firms offered ESI, they made workers higher-quality offers than did low-skilled firms; they did this through a greater choice of health care plans, lower premium payments for workers, and lower copayments for doctor visits and generic prescriptions. High-skilled large firms were also more likely than low-skilled ones to offer workers paid time and supplemental health benefits and pensions. Such differences are consistent with our framework of high-wage workers having a stronger preference for nonwage compensation than do low-wage workers.

When health care costs increased in the past, the typical strategy large firms adopted was one that directly affected a worker's compensation: they reduced the quality of the ESI offer. Almost 70 percent of large firms decreased the quality of their ESI offer by raising the payments workers paid for the coverage or for services (copayments/coinsurance). About 19 percent of large firms reduced wages or workforce access, and about 10 percent said they either gave fewer raises or reduced wages when health care costs increased. About 11 percent decreased benefits. (Some firms adopted multiple strategies.)

Differences between high-skilled and low-skilled firms existed in how they responded in the past to increasing health care costs. The dif-

ferential response suggests that the ACA will affect disparities in compensation between low- and high-skilled workers if it increases a firm's ESI expenditures. High-skilled firms were about 33 percent more likely to take an action that reduced the quality of the ESI offer than were low-skilled firms. Low-skilled firms were more likely than high-skilled firms to reduce wages and hire workers not eligible for ESI when health care costs increased. They were also more likely to increase the requirements relating to hours worked per week and months spent on the job which workers would need to meet to receive an offer, although this action is only available to about one-quarter of low-skilled firms—the low-skilled firms that had less restrictive offers than the ACA will require. Low-skilled firms were also 2.3 times more likely to decrease benefits. Multivariate estimations suggest that the difference in response between low- and high-skilled firms might be strongest for high-skilled firms adopting a strategy of decreasing the quality of the ESI offer, as opposed to low-skilled firms doing so. The coefficient on taking actions in this strategy is over 2.5 times greater than the coefficients on reducing wages and access or reducing benefits.

My analysis suggests that prereform disparities in ESI coverage and quality of offer between low- and high-wage workers might lessen after the ACA is implemented, as both the quality of ESI offer and the ESI coverage between low-skilled and high-skilled firms converge. Two pieces of evidence support this assertion. First, a greater proportion of low-skilled than high-skilled firms must increase coverage to meet the ACA requirements or potentially pay penalties. Not only are a greater proportion of low-skilled firms large and subject to the ACA requirements (35.5 vs. 25.4 percent; see Table 3.3 in Chapter 3) but a greater proportion did not meet those requirements in the CHES. If large firms expand their ESI coverage to meet the ACA's requirements, the coverage in low-skilled firms will expand to become more like the coverage in high-skilled firms. Such a change suggests that ESI coverage would expand more among low-wage workers than among high-wage workers. Second, low-skilled firms that offered ESI in the prereform period had lower-quality offers than high-skilled firms, and high-skilled firms were more likely to take an action that reduced the quality of that offer when health care costs increased. If the ACA increases health care costs and high-skilled firms lower the quality of their ESI offer, disparities in the quality of offer would decrease between low-skilled and high-

skilled firms when the ACA is fully implemented. As a result, the quality of ESI offer in large firms is likely to converge between low-wage and high-wage workers.

CHES data suggest that the convergence in ESI coverage and quality of offer between low-skilled and high-skilled firms might be accompanied by a divergence in the offer of other benefits. High-skilled firms offered significantly more benefits to workers in the prereform period and were less likely to decrease these benefits in the past when health care costs increased. It stands to reason that if the ACA increases ESI expenditures and high-skilled firms are less likely than other firms to reduce benefits in response, existing disparities in benefits offered to workers might increase as other firms reduce them. As a result, the benefits offered to low-wage and high-wage workers in large firms might become increasingly disparate if the ACA increases health care costs.

## Notes

1. Thresholds will be adjusted for firm-specific age and gender composition and increased by $1,650 (single coverage) or $3,450 (family coverage) for three categories of people: 1) retirees 55 and older who are not Medicare-eligible; 2) electrical and telecommunications installation/repair workers; and 3) individuals in high-risk jobs such as longshore work, emergency response, firefighting, law enforcement, construction, mining, agriculture, forestry, and fishing.
2. RAND predicts that, with the individual requirement to have insurance and with the lower-cost options available in the exchanges, coverage will increase proportionately more at small firms as workers increasingly demand coverage.
3. My analysis does not include the four behaviors that may have been responses to changes in the federal tax code and not to rising health care costs: 1) starting a health reimbursement account, 2) starting a flexible spending account, 3) starting a high-deductible plan, or 4) starting a health savings account.
4. The CHES data do not allow us to examine whether a firm might drop ESI if health care costs increase.
5. For a full discussion of the nature of the excludability of benefits, see IRS (2011, 2012). Dental, vision, and retiree health insurance; educational assistance; child care; discounts; parking; cafeteria facility; Keogh plans and defined benefit pensions; and flexible spending accounts all receive the same favorable tax treatment as ESI for firms. Dental, vision, and retiree health insurance; educational assistance; child care; discounts; flexible spending accounts; parking; cafeteria facility; and meals all receive the same favorable tax treatment for individuals. Individuals face deferred taxes and no FICA taxes on pension income. Paid leave (e.g., vaca-

tion, holidays, and sick leave) and supplemental income are taxed like wages for both firms and individuals.

6. Because individuals sort among firms that offer benefits that match their preferences (Marino and Zábojník 2008), careful construction of a firm's benefit offerings can be used to attract the desired workforce by generating a pool disproportionately composed of workers with certain characteristics. For example, offering a family-friendly bundle of benefits might help a firm attract and retain workers in their thirties and forties who are near the beginning or midpoint of their careers and looking for a stable career trajectory. In contrast, offering pensions, retiree health care, and long-term health care insurance might enable a firm to attract and retain experienced workers in their fifties. Baughman, DiNardi, and Holtz-Eakin (2003) illustrate this potential and show a trade-off between wages and flexible sick leave, child care services, and flexible scheduling when examining family-friendly policies and wages.
7. I excluded from analysis benefits for which the firm bears no explicit costs (flexible hours, job training, cafeteria plan, and financial assistance for child care—typically a dependent care allowance), benefits that generally are not used to attract a specific type of worker (severance pay, supplemental unemployment, substance abuse), and benefits that represent general human capital investments (financial assistance for education). I combined whether a firm offered a defined benefit or a defined contribution pension plan into a single variable that captures whether the firm offers a pension benefit, because firms rarely offer both types of plans. I recognize that differences exist in the types of firms offering each type of plan and that the nature of the pension in each plan differs tremendously. However, I want to keep the pension measure consistent with other benefit measures, which capture whether a benefit is offered, not the quality of the offer.
8. Firms with a majority of mid-skilled jobs and those without a majority of jobs at any skill level compose the omitted category.

# 5
# How Small Firms Might Respond to the ACA

Small firms are less likely than large firms to offer ESI, to make a lower-quality offer, and to pay increased premiums for a given level of coverage. In 2009, only about 34 percent of firms with fewer than 10 employees offered ESI, compared to 99 percent of firms with 10,000 or more workers (McMorrow, Blumberg, and Buettgens 2011). Offer rates between small and large firms have become more disparate over time. Between 2000 and 2009, offer rates for all firms fell from about 59 percent to 55 percent. Large firms (more than 50 workers) had no discernible decline, firms with 10 to 24 workers had a 10 percent decline, and firms with fewer than 10 workers had a 15 percent decline. One explanation for the decline might be increasing premium costs, which by 2010 had left small firms paying 18 percent higher premiums than large firms for equivalent coverage (Pelosi 2010).[1]

The coverage and premium differences between large and small firms have been a focal point for discussion in health care reform for decades. Two issues typically have driven the discussion (as Chapter 2 discusses): 1) small-group market risk assessment and 2) underwriting in premium-setting. These two issues are the dominant issues in the individual market for insurance and are related to the high administrative costs that smaller firms face.

Creating economies of scale helps counteract the increased costs facing small firms, and purchasing alliances are one way for small firms to achieve such economies of scale. Alliances mimic the large-group market by creating a formalized arrangement in which small firms pool their contributions to self-contributing or self-insuring benefit plans in the hope of gaining the economies of scale and the lower ESI administrative costs available to large firms. Multiple-employer welfare arrangements (MEWAs) and multiple-employer trusts (METs) provide examples of such alliances.

However, a purchasing alliance pool must have the ability to attract and retain a large enrollment base or it will not be in a position to

achieve the economies of scale and negotiate effectively with health plans (Curtis and Neuschler 2005). Past experiences with alliances often revealed problems such as the following: large start-up costs in time, money, and collective action; heterogeneity across employers in tastes for health plans; lack of awareness of the existence of such alliances; modest cost savings and concomitant resistance from brokers because of lower commission rates; and insufficient funding and inadequate reserves to pay claims (EBSA 2004).

The small-group market—of which associations are a part—falls under ERISA requirements for state regulation. State regulations helped reduce variability within a state in small-group plans by using several different means. The first is risk bands, in which premiums fall within a prescribed range of an average experience-rated premium. An alternative to risk bands is community rating, in which all enrolled groups face the same or a slightly characteristic-adjusted premium. And another means of reducing variability in small-group plans is through guaranteed issue to all applicants, guaranteed renewal, limitations on preexisting condition exclusions, and portability of coverage to limit coverage variability (Monheit and Schone 2004). State regulations tended to create variability between states, however, with their different requirements for risk assessment, underwriting, and associations. The ACA presumably will reduce between-state variability, as most of the small-group market will move into the newly designed state-run exchanges and all plans offered in the exchanges must meet ACA-established requirements, as well as any additional state-imposed requirements.

The shift to a more centralized regulation in the small-group market by the ACA, albeit one more akin to a confederacy than a dictatorship, was designed to enable more small firms to offer ESI to their workers. The CHES data can be used to assess the potential for change in four distinct ways. First, the CHES asked firms that did not offer ESI why they did not offer it. The reasons small firms gave can be aligned with the incentives provided by the ACA to offer ESI as a way of determining their alignment. If small firms showed an inclination toward offering ESI, and the ACA's incentives to offer it would offset their reasons for not offering it, we would presume that the act could incentivize at least some small firms to offer ESI. Second, the CHES asked small firms that offered ESI the battery of questions about how they responded to increased health care costs in the past three to five

years. These questions were used in Chapter 4's analysis to assess how large firms might act if the ACA increased ESI costs; they are used in this chapter to assess the potential response of small firms to ESI cost increases and to extrapolate their response to the postreform period. Third, the CHES allows us to segregate small firms into two different sizes to assess whether small firms of different sizes exhibit different ESI behaviors. Such an analysis is driven by the ACA's tax credit provisions targeted at firms with 25 or fewer workers. Although the CHES size category 5–19 is not a perfect overlap with the ACA category of 25 and under, it can be used to provide a crude assessment of whether the ACA provisions align with the behaviors of the very small firms to which the provisions are targeted.[2] Fourth, the CHES allows us to categorize small firms by workforce skills, which in turn enables us to examine disparities in ESI coverage between low-skilled and high-skilled small firms and to capture potential changes in those disparities, as we did for large firms in Chapter 4.

## THE ACA AND SMALL FIRMS

The ACA does not require small firms to offer ESI. Instead, it developed the exchanges to help structure the small-group market and provide incentives for small firms to offer ESI. Although the exchange within each state is often discussed as a single operation, it consists of two separate entities: the individual exchange and the Small Business Health Options Program (SHOP) exchange. The distinction exists because the ACA requires insurers to pool all individual members in one risk pool and all small-firm group members in another. The states have the flexibility to structure their exchange, since the ACA allows them three options: 1) to combine the two risk pools, 2) to operate separate individual and SHOP exchanges, or 3) to merge the two into a single exchange.[3] The legislation also allows states to develop subsidiary exchanges within a state and regional exchanges within a region, and to develop health care choice compacts between states that would allow insurers to sell policies in any state participating in the compact.

The ACA designed the exchanges to empower small firms (and individuals) in the health insurance market by increasing the flow of

information about health care plans sold and providing a venue through which subsidized price reductions for premiums could be implemented. The increased flow of information, which results in part from the standardization of plans in the exchanges, was designed to provide small firms (and individuals) with an ability to focus their selection of insurance on key features such as price or cost-sharing requirements and to eliminate the potential for unanticipated consequences that can sometimes be created by the fine print of health care contracts.[4] The subsidization of premiums was designed to provide small firms (and individuals) with an ability to afford health care coverage.

The ACA's focus on informed choice is manifested in its transparency and standardization provisions, which constitute the two pillars of increased information and minimum standards. The act requires all plans sold in the exchanges to communicate items such as claims-payment policies and practices, financial information, data on enrollment and disenrollment and on claims, denials and rating practices, and information on cost-sharing for out-of-network coverage. It also requires all health plans sold in the exchanges and small-group markets to meet certain criteria for items like marketing, network adequacy, accreditation, and quality improvements in plans.[5] All group plans sold in the exchanges and all small-group plans (100 or fewer employees) sold outside the exchanges must cover the following areas: preventive and primary care; emergency, hospital, physician, outpatient, and maternity and newborn care; pediatric care (including dental and vision); medical/surgical care; prescription drugs; lab; and mental health and substance abuse. Medical underwriting is prohibited for all small-group plans, and insurers can only vary premiums based on age, tobacco use, family composition, and geography.[6] Premiums cannot be based on health status, claims history, industry group, group size, or duration of coverage. Plans are required to fit into actuarial value tiers—designated as "platinum," "gold," "silver," and "bronze"—at 90, 80, 70, and 60 percent of actuarial value, and deductibles are limited to $2,000 for single coverage and $4,000 for family coverage.

Exchanges will ultimately serve as the vehicle for the small-business tax credits for ESI premiums. Starting in 2014, small businesses meeting both of two conditions—1) 25 or fewer full-time-equivalent employees and 2) average annual wages of no more than $50,000—are eligible for tax credits toward the purchase of ESI coverage.[7] Tax credits, for any

two years, are available for up to 50 percent of the employer contribution if it covers at least 50 percent of the premium. Premiums for which firms do not receive a tax credit can still be deducted from taxes.

## SMALL FIRMS THAT DID NOT OFFER ESI

If the exchanges operate as planned, they will make it easier, in at least four ways, for a small firm that does not offer ESI to offer it. These ways are as follows: 1) simulate large-group economies of scale and reduced administrative costs, 2) increase information flow, 3) provide some very small, low-wage firms with premium subsidies, and 4) reduce premium variability. Past research suggests mixed conclusions about the ACA's ability to increase the ESI offer among small firms. Some research highlights the potential for success by showing the ways in which the ACA might meet the concerns of small firms with regard to premiums, health care costs (Feldman et al. 1997; Hadley and Reschovsky 2002), variability of premiums, and administrative hassles (Morrisey, Jensen, and Morlock 1994), all of which might inhibit their making an ESI offer. Other research highlights the possibility that some small firms are recalcitrant in not making an ESI offer, as they believe their workers prefer other forms of compensation (McLaughlin and Zellers 1992), and the preference among workers for additional wages might intensify with the expansion of Medicaid eligibility or might reverse with the requirement for most individuals to have insurance.

We can use the CHES data to assess how the ACA incentives align with the reasons why small firms did not offer ESI. The CHES asked firms to rate the importance of a series of factors on their decision not to offer ESI by asking, "We are interested in knowing why your firm does not offer health insurance. On a scale where '1' is not at all important and '5' is very important, please say why your firm does NOT offer health insurance to its workers." Potential reasons rated for importance included the following: premiums were too high, worker turnover was too high, workers were covered under another plan, firm can attract good workers without it, firm is too small or new, firm had seriously ill worker, plan set-up is too complicated/time consuming, firm's revenue is too uncertain, business can't afford it, workers can't afford it, work-

ers don't need it, workers prefer wages, firms don't need health insurance to get good workers, workers are temporary, and firms don't know where to go to get information. I use descriptive statistics to identify the reasons small firms do not offer ESI in the aggregate and for low- and high-skilled firms. A factor analysis of the potential reasons for not offering ESI distilled a small number of motivations and helped me assess whether these motivations might align with the incentives in the ACA to offer it.

Analysis of the CHES data suggests that premium and administrative costs were prevalent motivations for small firms not to offer ESI and that the ACA's tax credits for premiums and exchanges were designed to offset these motivations (Table 5.1). The factor analysis (Appendix B presents details) of the 11 reasons in the CHES that contribute to a firm's decision not to offer ESI in the prereform period identifies four motivations for not offering ESI.[8] Of these four motivations identified, there are two we are calling "costs too high" and "administrative costs (and worker preferences)." Together these two factors explain about 38.4 percent of the variance in the reasons small firms provided for not offering ESI. Over 82 percent of small firms gave a reason for not offering ESI that fell into the cost-too-high motivation (Table 5.1). Some 78.5 percent said they did not offer ESI because the premiums were too high, 67.3 percent said their business could not afford it, and 48 percent said revenue was too uncertain to commit to a plan. About 82 percent of small firms also listed at least one of the reasons in the administrative-costs-and-worker-preference motivation for not offering ESI. Nearly 58.6 percent said their firm was too small or too new to offer ESI, and 52.2 percent said their workers could not afford it. Some 24.9 percent said that setting up a plan was too time-consuming or complicated (presumably because they did not have benefit specialists in the firm).

The categories of "workforce characteristics" and "healthy workers" round out the four motivations and account for the remaining 30.5 percent of the variation explained by the reasons firms did not offer ESI. About 59 percent of small firms listed at least one of the reasons in this motivation. Some 42.8 percent of small firms said they could recruit and retain good workers without ESI, although that was the reason with the smallest correlation to the factor-defined motivation. About 34.6 percent said their workers are temporary or part-time. Nearly 31.5 percent cited high worker turnover as a reason for not offering ESI, although

**Table 5.1 Reasons Small Firms Did Not Offer ESI (%)**

| | | Workforce skills | | Firm size (no. of workers) | |
|---|---|---|---|---|---|
| | Total | Low-skilled | High-skilled | 5–19 | 20–50 |
| Percentage citing one of the reasons below | 91.8 | 95.0 | 83.3** | 90.4 | 98.7** |
| Costs too high | 82.6 | 89.8 | 65.4** | 81.0 | 95.7** |
| Premiums too high | 78.5 | 86.8 | 61.2** | 75.6 | 91.7** |
| Business cannot afford it | 67.4 | 81.8 | 45.7** | 65.8 | 75.1** |
| Revenue too uncertain to commit to a plan | 48.0 | 66.6 | 32.7** | 43.5 | 68.7** |
| Administrative costs and worker preference | 81.8 | 75.8 | 76.4 | 79.0 | 94.4** |
| Firm too small or new | 58.6 | 52.9 | 59.6 | 58.6 | 58.5 |
| Workers cannot afford it | 52.2 | 56.4 | 25.5** | 48.4 | 69.6** |
| Workers prefer wages or other benefits | 42.3 | 49.9 | 40.7* | 40.9 | 48.6 |
| Plan set up to be too complicated and time-consuming | 24.9 | 26.5 | 16.0** | 24.0 | 29.2 |
| Workforce characteristics | 58.9 | 60.9 | 50.6** | 57.0 | 67.9** |
| Don't need ESI for good workers | 42.8 | 41.7 | 37.0 | 39.4 | 58.8** |
| Workers are temporary, part-time | 34.6 | 44.2 | 18.9** | 30.7 | 53.6** |
| Worker turnover too high | 31.5 | 37.2 | 9.8** | 27.0 | 52.1** |
| Healthy workers | | | | | |
| Workers are healthy and do not need it | 20.2 | 28.7 | 18.9** | 18.2 | 29.7** |
| *N* (unweighted) | 160 | 60 | 39 | 124 | 36 |

NOTE: Firms not offering health insurance were asked how important each reason was in their decision not to offer it. Numbers represent the percentage of firms saying that the stated reason for not offering insurance was either very important or important. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

the instability could arise because the firm did not offer ESI. About 20.2 percent of small firms did not offer ESI because they believed their workers were healthy and did not need health care coverage—the last motivation we identified.

This analysis suggests that small firms that did not offer ESI in the prereform period might be swayed by ACA provisions to offer it, because the SHOP exchanges present solutions to the primary concerns of small firms. Costs—premium and administrative—and workers' ability to afford ESI were cited as important reasons for not offering it in a majority of firms, and the legislation was specifically designed to overcome such obstacles. The tax credits for premiums for some small firms were intended to offset out-of-pocket ESI expenses. The exchanges were designed to offset administrative concerns, and the premium credits for low-income workers were devised to help workers afford ESI premiums.

Furthermore, the CHES data suggest that small firms might have a propensity to take advantage of the ACA incentives to offer ESI, as about 30 percent that did not offer ESI in the prereform period said they might be interested in offering it. About 29.3 percent of small firms said they were at least somewhat likely to offer it in the next two years (Table 5.2), and 29.2 percent had shopped for it in the past year—about the same percentage as shown in the Employer Health Benefits Survey (EHBS) (Claxton et al. 2010).[9]

However, other evidence in the CHES suggests that most small firms that did not offer ESI in the prereform period will not offer it after the ACA. Few small firms perceived negative ramifications from not offering ESI, which might make it hard to motivate them to offer it. Firms not offering ESI were asked a battery of questions about the perceived impact on them of not offering it. The questions asked, "On a scale where '1' is virtually no impact and '5' is a very large impact, please rate the following." There followed a list of areas including worker recruitment, retention, attitude/performance, health and absenteeism, and the overall success of the business. Should firms perceive a large impact on their business of not offering ESI, one would presume they might readily respond to incentives to offer it. If, however, they perceive few negative consequences from not offering ESI, it might be more difficult for the ACA to change their behavior. The CHES data suggest that only about 16 percent of small firms said they felt repercus-

**Table 5.2 Characteristics of Small Firms with Regard to ESI, by Skill Level and Firm Size**

| | | Workforce skills | | Firm size (no. of workers) | |
|---|---|---|---|---|---|
| | Total | Low-skilled | High-skilled | 5–19 | 20–50 |
| All small firms | | | | | |
| % low-skilled firms | 25.4 | — | — | 22.9 | 33.3** |
| % high-skilled firms | 30.8 | — | — | 32.5 | 25.6** |
| % very small (5–19 workers) | 75.8 | 68.3 | 79.9** | — | — |
| % offer ESI | 74.3 | 60.9 | 82.0** | 72.0 | 81.7** |
| *N* (unweighted) | 702 | 164 | 225 | 475 | 227 |
| Small firms not offering ESI | | | | | |
| % offered past 5 years | 11.7 | 18.1 | 13.4* | 12.8 | 5.1** |
| % shopped ESI past year | 29.2 | 25.5 | 19.2* | 29.1 | 29.9 |
| % at least somewhat likely to offer next 2 years | 29.3 | 27.7 | 20.2** | 24.7 | 51.1** |
| *N* (unweighted) | 162 | 60 | 40 | 125 | 37 |

NOTE: "% offered past 5 years" is the percentage of firms not offering ESI that offered it sometime in the past five years. "% shopped ESI past year" is the percentage of firms not offering ESI that shopped for it in the past year. "% at least somewhat likely to offer next 2 years" is the percentage of firms not offering ESI that say they are somewhat or very likely to offer it within the next two years (as opposed to not likely to do so). Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry.
* significant at the 0.10 level; ** significant at the 0.05 level.
SOURCE: CHES (Maxwell 2007).

sions from not offering ESI (Table 5.3).[10] About 11 percent said that not offering ESI had a large impact on worker retention/turnover, the most frequently mentioned negative consequence. Fewer than 9 percent of firms said that not offering ESI had a large impact on worker recruitment, attitude and performance, or health; and fewer than 5 percent said it had a large impact on absenteeism and the overall success of their business.

As well, few small firms appear to be eligible for tax credits. Although low-skilled and very small firms had low rates of offering ESI[11] and are the firms targeted for tax credits for premiums, the proportion of these firms is low—in part, because very small firms are disproportionately high-skilled (Table 5.2). Because only about 23 percent

**Table 5.3 Small Firms' Perceived Consequences of Not Offering ESI**

| | | Workforce skills | | Firm size (no. of workers) | |
|---|---|---|---|---|---|
| | Total | Low-skilled | High-skilled | 5–19 | 20–50 |
| Impacted in at least one of the ways below[a] | 16.1 | 17.7 | 1.3** | 14.6 | 30.2** |
| Worker retention (turnover) | 11.4 | 12.2 | 0.0** | 8.8 | 24.1** |
| Worker recruitment | 8.4 | 9.1 | 0.0** | 5.7 | 21.5** |
| Worker attitude and performance | 8.1 | 8.4 | 0.0** | 4.8 | 24.2** |
| Health of workers | 7.2 | 7.4 | 0.0** | 3.9 | 23.2** |
| Absenteeism | 4.8 | 3.5 | 0.0** | 1.6 | 21.1** |
| Overall success of business | 4.6 | 7.7 | 1.3** | 4.6 | 4.3 |
| *N* (unweighted) | 160 | 60 | 39 | 124 | 36 |

NOTE: Item-specific nonresponse lowered sample sizes in some cells. The question was posed to firms *not* offering health insurance: "I'd like to ask you some questions on the impact NOT offering health insurance has on your workforce. On a scale where '1' is virtually no impact and '5' is a very large impact, please rate the following . . ." Numbers represent the percentage of firms saying that the consequence of not offering insurance had either a large or a very large impact (4 or 5). Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant at the 0.05 level.

[a] "Impacted in at least one of the ways below" shows the percentage of firms not offering ESI that mentioned they were affected in a negative way. Firms might have mentioned one of the reasons listed in the table or another reason not covered by the listed categories.

SOURCE: CHES (Maxwell 2007).

of very small firms are low-skilled, CHES data suggest that only about 17 percent of all small firms and 31 percent of small firms not offering health benefits will be eligible for the tax credit on premiums.

Even if a small firm is eligible for a tax credit, the incentive might not be large enough to motivate firms to change their behavior. Although only 11.7 percent of CHES small firms not offering ESI had offered it in the past five years (Table 5.2),[12] about 40 percent of them said they dropped it because it was too expensive. Despite the potential of tax credits to lower premiums, they are targeted at few firms and last only two years. Furthermore, premium costs are likely to rise, as the last chapter argued. It is therefore not evident that such weak incentives will cause many of these firms to reverse their behavior and offer ESI.

Maxwell's (2011) simulation using the CHES data shows that the percentage of small firms offering ESI would increase from 74.3 percent to 77.7 percent with tax credits and 1.5 percent premium increases.

Both descriptive statistics and multivariate analysis suggest differences between low- and high-skilled firms and the very small (5 to 19 workers) and larger of the small firms (20 to 50 employees) in their motivations for not offering ESI. Low-skilled firms were more likely to cite every reason in the cost-too-high motivation for not offering ESI than were high-skilled firms, and very small firms were less likely than the larger of the small firms to cite them (Table 5.1). Multivariate analysis suggests that skill factors override the size factors (Table 5.4). I use the number of reasons cited in each factor-identified motivation as dependent variables in ordinary least squares (OLS) estimations with workforce skills (high-skilled and low-skilled) and size (fewer than 25 workers) as independent variables. Results show a positive and significant ($p \leq 0.05$) coefficient on low-skilled small firms and a negative and

**Table 5.4 Motivations for Not Offering ESI, by Level of Workforce Skills and Firm Size**

| | Costs too high | Admin. costs and worker preference | Workforce characteristics | Healthy workers |
|---|---|---|---|---|
| Workforce skills | | | | |
| Low-skilled firm | 0.516** | –0.084 | 0.078 | 0.167** |
| High-skilled firm | –0.377* | –0.049* | –0.453* | 0.086 |
| Firm size | | | | |
| Very small (5–19 workers) | –0.404* | –0.238 | –0.596** | –0.125 |
| Mean dependent variable | 1.944 | 1.793 | 1.073 | 0.202 |
| Range | 0–3 | 0–4 | 0–3 | 0–1 |
| *N* (unweighted) | 156 | 153 | 156 | 156 |

NOTE: Questions only asked of firms not offering health insurance. Item-specific nonresponse decreased sample size in the "Administrative costs and worker preference" estimation. Numbers reflect estimated OLS coefficients, with the dependent variable reflecting the number of reasons the firm said it undertook in each motivation presented in Table 5.1. Appendix C provides a definition for variables used in the analysis. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

significant ($p \leq 0.10$) one on high-skilled firms, suggesting that low-skilled firms might be more likely to take advantage of the tax credits for premiums, and that they are likely to be the firms that are eligible for them.

Low-skilled firms were also more likely to cite worker issues as reasons for not offering ESI (Table 5.1). About half of low-skilled firms but only about one-quarter of high-skilled firms claimed they did not offer ESI because workers could not afford it. Of course, the ACA might change this reasoning, as the workers in low-skilled firms might become eligible for expanded Medicaid eligibility. OLS estimations suggest that high-skilled firms ($p \leq 0.10$) and the larger of small firms ($p \leq 0.05$) were less likely to cite reasons in the worker-characteristic motivation than other firms (Table 5.4). Particularly striking is the relatively low percentage of high-skilled firms that cite temporary workers (18.9 percent) or high turnover (9.8 percent) as reasons, compared to 44.2 and 37.2 percent of low-skilled firms.

A significantly higher percentage of low-skilled firms and of the larger (20 to 50 employees) of the small firms gave some indication of offering ESI than did high-skilled or very small firms. Low-skilled firms and the larger of the small firms had higher percentages of firms that expressed negative consequences from not offering ESI (Table 5.3), which suggests that these firms might be those most likely to be on the brink of offering it. About 30 percent of firms with 20 to 50 workers perceived consequences from not offering ESI, compared to about 15 percent of firms with 5 to 19 workers. Only 1.3 percent of high-skilled firms felt that not offering ESI had a large impact in any of the above-mentioned areas.

## SMALL FIRMS THAT OFFERED ESI

Chapter 4 provided a detailed discussion of how the ACA might increase ESI premiums. Enhanced services, such as more comprehensive coverage of the essential benefit package and the lower out-of-pocket costs that the ACA requires in plans, might increase premium costs for firms. Small firms are not exempt from these requirements. Indeed, because the plans small firms offered prior to the ACA often

contained less extensive coverage, higher deductibles, and greater cost-sharing provisions than those of larger firms (Williams and Lee 2002), the premium increase for small firms might be greater than for large firms, as their prereform plans might be further from the ACA requirements. Perhaps because of these potential premium increases, the Mercer (2010) survey of 2,800 firms found that about 20 percent of small firms (10–499 employees) said they are likely to terminate their health plans after 2014, when most of the ACA provisions are implemented. Firms with low-paid workers and high turnover were most likely to say they would eliminate their health plans.

Although the CHES data provide no insight into whether increased health care costs might cause small firms to drop ESI coverage, the data do allow me to analyze the 16 actions small firms took when health care costs increased in the past and to assess how a small firm that keeps its coverage might alter its behavior if ESI costs rise, as I did in Chapter 4 for large firms. I note that about 22 percent of small firms increased product price or decreased the quality of the services they provided when health care costs increased in the past—about the same proportion as for large firms.

My factor analysis of the actions small firms took when health care costs increased in the past (Appendix B provides details) suggests that small firms adopted the same five strategies as large firms. I discuss these strategies in same three categories as I did for large firms: 1) reduce wages or employment access to ESI, 2) reduce the quality of the ESI offer, and 3) reduce other benefits.

**Reduce Wages or Access**

Even though the ACA will not require small firms to provide ESI to employees, we can use the requirement that large firms must make an offer to employees working 30 hours per week and having three months of tenure as a benchmark by which we can gauge access. In 2005–2006, about two-thirds of small firms that offered ESI did not meet this benchmark (Table 5.5). Nearly 60 percent (58.8) required employees to work more than 30 hours per week, and close to 20 percent (19.7) required them to wait longer than three months before receiving an offer.

When health care costs increased, about 25 percent of small firms (31 percent in the larger category of small firms, 20–50 workers) took

**Table 5.5 Prereform Behaviors of Small Firms Offering ESI, by Skill Level and Firm Size**

| | | Workforce skills | | Firm size (no. of workers) | |
|---|---|---|---|---|---|
| | Total | Low-skilled | High-skilled | 5–19 | 20–50 |
| Wages and access | | | | | |
| % not meeting large-firm hours and tenure requirements | 66.1 | 77.5 | 63.7** | 63.0 | 74.9** |
| % exactly meeting large-firm hours and tenure requirements | 9.4 | 10.8 | 6.6** | 9.9 | 8.1** |
| % with greater access than large-firm requirements | 24.5 | 11.8 | 29.7** | 27.1 | 17.1** |
| % requiring more than 30 hours per week worked | 58.8 | 70.5 | 56.8** | 55.7 | 66.9** |
| % without a wait period | 8.3 | 0.6 | 15.7** | 9.3 | 5.5** |
| % with a wait period of more than 3 months | 19.7 | 30.2 | 17.6** | 20.0 | 19.0 |
| Quality of ESI offer | | | | | |
| Price of ESI for workers | | | | | |
| Worker monthly payment, single coverage ($) | 38.00 | 51.60 | 35.70 | 34.80 | 48.10 |
| Average % premium paid | 11.5 | 12.9 | 7.4** | 10.6 | 14.0 |
| Average copayment for doctor visit ($) | 21.50 | 21.00 | 20.00 | 20.20 | 25.30 |
| Average % of coinsurance for doctor visit | 12.2 | [a] | [a] | [a] | [a] |
| Average copayment for generic prescription ($) | 13.70 | 13.00 | 14.40 | 13.70 | 13.90 |
| Average % of coinsurance for generic prescription | [a] | [a] | [a] | [a] | [a] |
| Choice in plans | | | | | |
| % that offer more than one plan | 45.3 | 37.6 | 52.9** | 39.7 | 60.8** |
| % that offer more than one type of plan | 38.5 | 31.7 | 45.6** | 32.8 | 54.0** |

| | | | | | |
|---|---|---|---|---|---|
| Other benefits (% offering) | | | | | |
| Paid time benefits | | | | | |
| Paid vacation | 94.1 | 87.8 | 95.7** | 93.0 | 97.3** |
| Paid holidays | 91.7 | 88.9 | 94.2** | 91.1 | 93.2** |
| Paid sick leave | 76.0 | 57.7 | 85.4** | 74.9 | 79.2** |
| Supplemental health benefits | | | | | |
| Dental | 60.9 | 65.4 | 67.4 | 54.2 | 79.4** |
| Life insurance | 33.5 | 33.9 | 35.9 | 27.8 | 49.0** |
| Long-term disability (wage replacement) | 28.2 | 22.6 | 34.2** | 27.0 | 31.6** |
| Vision | 31.7 | 39.6 | 35.6 | 25.3 | 49.4** |
| Long-term health benefits | | | | | |
| Long-term health care (e.g., nursing home) | 8.6 | 13.5 | 13.0 | 9.3 | 6.7** |
| Retiree health | 5.7 | 4.7 | 6.7 | 5.9 | 5.1* |
| Pension | 59.3 | 55.5 | 69.0** | 56.0 | 68.5** |
| Number of non-health benefits | 3.6 | 3.4 | 3.8** | 3.4 | 3.9** |
| Number of other health-related benefits | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 |
| *N* (unweighted) | 536 | 104 | 185 | 347 | 198 |

NOTE: Item-specific nonresponse reduced the percentages greatly in the "Price of ESI for workers" variables. Non-health benefits include retirement, life insurance, paid vacation, holidays, and sick leave. Other health-related benefits include mental health/substance abuse, long-term health insurance, and long-term disability, all of which are separate from the health insurance plan. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

[a] Cell contains fewer than 20 firms.

SOURCE: CHES (Maxwell 2007).

**Table 5.6 Small-Firm Responses to Rising Health Care Costs, 2005–2006**

| | | Workforce skills | | Firm size (no. of workers) | |
|---|---|---|---|---|---|
| | Total | Low-skilled | High-skilled | 5–19 | 20–50 |
| Percentage taking one action below | 61.7 | 56.1 | 65.9** | 59.8 | 66.4** |
| Wages and access | 25.2 | 22.7 | 27.1* | 23.1 | 31.0** |
| Workforce costs | 21.9 | 17.5 | 24.0** | 20.0 | 26.9** |
| Give fewer raises or reduce wages | 17.2 | 13.1 | 18.0** | 15.3 | 22.3** |
| Reduce workforce | 9.7 | 9.4 | 9.1 | 8.5 | 13.2** |
| Increase workers not eligible for benefits | 6.2 | 2.6 | 6.3** | 3.7 | 13.0** |
| Access to benefits | 6.1 | 8.9 | 4.9** | 4.9 | 9.4** |
| Increase months to receive benefits | 4.6 | 7.4 | 2.6** | 3.7 | 7.3** |
| Increase hours to receive benefits | 2.4 | 2.0 | 2.5* | 2.2 | 2.8** |
| Quality of ESI offer | 51.7 | 45.9 | 57.5** | 48.6 | 59.8** |
| Worker price of ESI | 41.4 | 36.1 | 42.2** | 37.0 | 52.8** |
| Increase worker payment for single coverage | 31.0 | 22.2 | 29.5** | 27.2 | 40.8** |
| Increase worker payment for family coverage | 21.4 | 23.1 | 15.7** | 17.5 | 31.9** |
| Increase copayment or coinsurance | 21.4 | 23.5 | 16.0** | 17.6 | 31.7** |
| ESI choice | 30.2 | 28.1 | 36.3** | 28.4 | 35.0** |
| Change health insurance carriers | 23.2 | 21.8 | 30.7** | 22.7 | 24.6 |
| Decrease variety of health plans | 12.8 | 9.8 | 14.4** | 12.1 | 14.9** |
| Decrease number of health plans | 7.0 | 6.5 | 5.5 | 7.5 | 5.5** |

| | | | | | |
|---|---|---|---|---|---|
| Benefits | 13.9 | 12.3 | 8.2** | 12.8 | 16.9** |
| Decrease health insurance coverage | 9.5 | 7.4 | 5.2** | 8.6 | 12.1** |
| Decrease non-health benefits | 6.3 | 7.1 | 2.8** | 6.5 | 5.8 |
| Decrease dental insurance | 3.8 | 4.9 | 3.2** | 3.5 | 4.6** |
| Decrease vision insurance | 3.4 | 3.3 | 2.0** | 2.3 | 6.2** |
| Decrease other health-related coverage | 1.9 | 2.0 | 0.7** | 1.4 | 3.2** |
| Increase prices | 22.0 | 24.3 | 16.9 | 21.2 | 24.2* |
| *N* (unweighted) | 529 | 103 | 179 | 342 | 187 |

NOTE: The following question was posed to firms offering health insurance: "In the past 3 to 5 years, in response to rising health care costs, did your firm . . . ?" Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

an action that reduced wages or access to ESI (Table 5.6). About 22 percent gave fewer raises or reduced wages. A significantly lower percentage of low-skilled than of high-skilled firms reduced real wages, which we would anticipate, since low-skilled workers have a stronger preference for wages than for benefits.

Very small firms were less likely than other firms to adopt a general strategy of reducing wages or access when health care costs increased. Because a lower percentage of very small firms than of the larger category of small firms (63 vs. 75 percent) did not meet the access benchmarks set by the ACA (Table 5.5), their decreased likelihood of changing access would cause access rates among small firms of different sizes to converge (Table 5.6). The negative and significant ($p \leq 0.05$) OLS coefficient for very small firms confirms the association (Table 5.7).

### Decrease Quality of the Offer

Small firms might reduce the quality of the ESI offer in the prereform period in a number of ways. For one, they could reduce the

**Table 5.7 Coefficients of Small Firms' Responses to Rising Health Care Costs, by Workforce Skills and Size, 2005–2006**

| | Wages and access | Quality of ESI offer | Benefits |
|---|---|---|---|
| Workforce skills | | | |
| Low-skilled firm | –0.130 | –0.291 | –0.105 |
| High-skilled firm | –0.047 | –0.101 | –0.192 |
| Very small firm (5–15 workers) | –0.275 | –0.486 | –0.096 |
| Mean-dependent variable | 0.400 | 1.145 | 0.247 |
| Range-dependent variable | 0–5 | 0–6 | 0–5 |
| *N* (unweighted) | 522 | 489 | 516 |

NOTE: Questions were only asked of firms that offered ESI. Item-specific nonresponse decreased sample size in some estimations. Numbers reflect estimated OLS coefficients, with the dependent variable reflecting the number of responses that the firm said it undertook in the strategy as presented in Table 5.6. Appendix C provides a definition for all variables used in the analysis. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. * significant at the 0.10 level; ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

choice in plans. About 45 percent offered workers a choice in health care plans, with close to 39 percent offering them a choice in the type of plan they could select (Table 5.5). The availability of choice increased with skill level and size. High-skilled firms were about 1.4 times more likely to offer workers a choice in plans than were low-skilled firms, and the larger of the small firms were about 1.5 times more likely to offer choice than were very small firms. The quality of the offer might also be reduced by decreasing the percentage of the premium that the firm paid or by increasing copayments or coinsurance requirements. Few differences existed between small firms with different levels of workforce skill or size along these dimensions in the prereform period (the lower-percentage premium paid by high-skilled than low-skilled firms being the exception).

When health care costs increased, about half of the small firms took an action that decreased the quality of the ESI offer (Table 5.6). Some 41.4 percent increased the worker's price of ESI, and about 30 percent decreased choice.[13] While descriptive statistics suggest that both high-skilled and the larger category of small firms were more likely adopt this strategy when health care costs increased in the past, multivariate analysis (Table 5.7) suggests that, once such analysis holds skills constant, only the size differential remains.

**Reduce Benefits**

I used the factor-analysis-defined groupings of benefits, described in Chapter 4, to describe the types of benefits small firms offer (Table 5.5). Descriptive analysis suggests that a great deal of variation exists in the benefits that small firms offer, and that systematic differences exist according to both the skills of a firm's workforce and its size. Over nine-tenths of small firms offered paid vacation and holidays, and over three-quarters offered paid sick leave. Both high-skilled and the larger of the small firms offered significantly ($p \leq 0.05$) higher levels of each paid-time benefit than low-skilled and very small firms. Although about 60 percent of small firms offered dental insurance and pensions, only about 30 percent offered other supplemental health benefits, and fewer than 9 percent offered long-term pensions. Few differences existed between low- and high-skilled firms in these offerings (long-term disability and pension being the exceptions). Size differences did exist, however, as

the larger of the small firms offered significantly more supplemental health benefits and pension benefits but fewer long-term health benefits.

About 14 percent of small firms took an action that reduced benefits when health care costs increased, with a larger percentage of low-skilled and very small firms taking this action (Table 5.6). OLS analysis suggests that, when size is held constant, the workforce-skills influence affects whether firms adopt a strategy of reducing benefits when health care costs increase (Table 5.7). The negative and significant ($p \leq 0.05$) coefficient on high-skilled firms confirms the description that they are less likely than other firms to adopt a strategy of cutting benefits when health care costs increase.

## SUMMARY AND DISCUSSION

The ACA was designed to encourage ESI coverage in small firms by building state-run exchanges that would simulate the advantages of the large-group market, establish common rules for offering and pricing certified health benefit plans, and provide a vehicle for giving tax credits on a sliding scale for ESI premiums to small businesses having two qualifying conditions: 1) 25 or fewer full-time-equivalent employees and 2) average annual wages of no more than $50,000. The hope was to decrease the effective cost of ESI for small firms, thereby increasing the likelihood that they will offer it.

How likely are small firms that don't offer ESI to change their behavior with the ACA and offer it? The CHES data suggest the legislation might not change their behavior. Although about 30 percent of small firms indicated their potential to offer ESI in the years before or after the surveying and a relatively large percentage cited financial difficulties and administrative burdens as reasons for not offering ESI, the CHES data suggest that only about 17 percent of all small firms and 31 percent of small firms not offering health benefits might be eligible for the tax credit for premiums. Furthermore, only about 16 percent of small firms said that not offering ESI held negative consequences, which suggests that many firms perceive few benefits to offering ESI. The lack of perceived negative ramifications from not offering ESI raises doubts about the ACA's ability to incentivize small firms to offer it.

What are the potential consequences of ACA-induced ESI premium increases for small firms that currently offer ESI? Although the CHES data do not contain information that would allow us to assess whether firms are likely to drop ESI with premium increases, they do allow us to assess changes that might affect worker wages or employment access, quality of the ESI offer, and other benefits and disparities between low-wage and high-wage workers. My analysis suggests that small firms that offered ESI might exhibit many of the same behaviors as larger firms if the ACA increases premium costs. When health care costs increased in the past, about 62 percent of small firms took an action that directly affected the nature of worker compensation or employment access to ESI. The typical strategy was to decrease the quality of the ESI offer—about half of all small firms took such an action. About 41 percent raised the price of ESI to workers, and about 30 percent decreased the choice of plans. About 25 percent of small firms reduced wages or workforce access to ESI; within this 25 percent, about 17 percent gave fewer raises or reduced wages, 10 percent reduced the workforce, and 6 percent reduced access (firms could select more than one action). About 14 percent of small firms reduced benefits in the past when health care costs increased.

Data in the CHES showed few disparities in quality of the ESI offer between low-wage and high-wage small firms in the prereform period (other than in choice of plans), unlike the differences shown for large firms. The CHES also provided no indication that this parity might change in the postreform period, in contrast to the convergence between low- and high-skilled small firms in terms of the access to and quality of the ESI offer suggested for large firms. Very small firms were less likely to adopt a strategy of reducing wages, access, and quality of offer when health care costs increased, which might reduce existent prereform differentials between firms of different sizes.

The CHES data suggest that increased ESI premium costs might create a divergence in the offer of other benefits to low-wage and high-wage workers in small firms, as it did in large firms (Chapter 4). High-skilled small firms were less likely than other small firms to adopt a strategy of decreasing benefits when health care costs increased, just like their large-firm equivalents. Because high-skilled small firms offered higher levels of paid time, supplemental health, and pension benefits than low-skilled small firms in the prereform period and were

less likely to decrease them with ESI cost increases, the existing disparities in benefits offered to low-wage and high-wage workers might increase if the ACA increases health care costs for small firms.

## Notes

1. Premium differences do not always translate into a higher level of coverage in small firms. Indeed, the lower quality of ESI offered (e.g., higher deductibles and cost-sharing provisions) places average premiums below those for large firms (Williams and Lee 2002).
2. The ACA counts employees in full-time-equivalent units and the CHES counts employees as the number of workers. Two part-time workers in the CHES could count as one worker using the ACA definition.
3. A separate SHOP exchange might better serve the administrative needs of small firms (e.g., processing applications for coverage and subsidies, billing enrollees, doing financial reconciliation, paying commissions, developing and maintaining Web sites, performing marketing and outreach, and providing broker and human resources training). An integrated exchange might be more cost-effective in areas like certifying and rating qualified plans and allowing movement between individual and ESI plans.
4. The ACA allows states to adopt more stringent requirements for the structure, plans, and information than are set forth in its legislation.
5. Grandfathered and self-insured plans are generally exempt.
6. The premium charged for individuals aged 64 or older is capped at three times the premium for an 18-year-old with the same coverage. The premium difference is capped at 1.5 for those using tobacco. The same pricing standards apply to all fully insured large group plans in and out of the exchange in states that permit large-group plans in their exchange. Self-insured plans are exempt.
7. The full credit is available to firms with 10 or fewer workers and average annual wages of $25,000 or less. The size of the credit phases out as the average wage and firm size increases, up to $50,000 and 25 or fewer full-time workers. The sliding-scale tax credit was worth up to 35 percent of a small firm's premiums in 2010 and is worth up to 50 percent starting in 2014. Firms can claim the credit for 2010 through 2013 and for any two years thereafter.
8. We eliminated four reasons from our analysis. "The firm has (or had) a seriously ill worker" was eliminated because only 0.9 percent of firms mentioned that it had a large impact on their decision not to offer insurance and, when the reason was included in the analysis, it loaded on a separate factor that did not appear to be highly correlated with other reasons. "Don't know where to go for information on starting a health insurance plan" was eliminated for the same reason (only 2 percent of firms mentioned it as having a large impact on their decision). "Firm can attract good workers without offering it" was eliminated as it seemed duplicative of "Don't need to offer health insurance to recruit and retain good workers"

and had a slightly larger number of missing values. "Workers are covered under another plan" was eliminated because it did not load on any factor using our criteria of 0.5 and had a negative correlation with our factors. This reason seems to be supposition and was behaviorally subsumed under the "Don't need to offer health insurance to recruit and retain good workers" reason.

9. This percentage is higher than the 22 percent of firms in the Small Employer Health Benefits Survey (Fronstin and Helman 2003) that said they were somewhat likely to offer ESI. That survey was fielded about four years before the CHES to firms with 2 to 50 employees.
10. The percentage is about the same as that shown in the 2002 Small Employer Health Benefits Survey (Fronstin and Helman 2003) and is consistent with workers sorting among firms to match their preference for the structure of compensation (Lehrer and Pereira 2007).
11. About 60 percent of low-skilled and 80 percent of high-skilled small firms offered ESI, and about 72 percent of very small firms (5 to 19 workers) and 82 percent of the larger category of small firms (20 to 50 workers) offered it.
12. The number of CHES firms not offering ESI at the time of surveying but having offered it in the previous five years is far lower than the 27 percent having this status in the 2010 EHBS (Claxton et al. 2010).
13. These numbers contrast with estimates from the 2002 Small Employer Health Benefits Survey that 19 percent of small firms (2 to 50 workers) made changes to their health plans following cost increases (Fronstin and Helman 2003).

# 6
# Health Policy and Firm Behavior

The lack of universal access to high-quality, affordable health care that had periodically commanded center stage in public policy discussions over the past three decades culminated in the passage of the Patient Protection and Affordable Care Act (ACA), as amended by the Health Care and Education Reconciliation Act of 2010. Discussions and debate about health care reform may have even intensified after its passage, and the heated arguments over the efficiency, consequences, and legality of the legislation have kept it in the headlines. Indeed, at the time this book went to press, members of the Supreme Court were writing majority and dissenting opinions for the Court's ruling—as yet unknown—on the constitutionality of the ACA. The only issue the legislation seems to have removed from discussion is adoption of a publicly structured health care system, for the ACA firmly grounded reform in the existing tripartite system of access to health care and did not include an option for publicly provided health care.

During the prereform period, individuals in the market for health care were faced with the question, "Do I qualify for any of the three ways of obtaining health insurance?" They might have gained access to health care through the workplace if they were part of the labor market and belonged to a firm that offered employer-sponsored insurance (ESI). They might have gained coverage through the government if they met its requirements for coverage (generally age and income restrictions). Finally, they might have gained coverage in the private, nongroup market if they were in good health and could afford the premiums.

Most nonelderly adults considered ESI to be the preferred coverage, because of its improved risk pools for insurers and its tax savings for both firms and workers. Individuals generally received employment-based coverage if they met three conditions: 1) had access to employment in a firm that offered insurance, 2) were eligible to receive the offer, and 3) could afford the premiums. While about 60 percent of the nonelderly population gained access to health care through employment, disparities existed in its coverage. Coverage rates stood 27 percent higher for college-educated workers than for school-educated

workers in 2007 (Gould 2008) and 47 percent higher for workers earning more than $15 per hour than for those earning less than $10 per hour in 2003 (Collins et al. 2004).

Health care access through the government provided coverage for most of the elderly and low-income populations. These groups generally qualified for health insurance under federal programs such as Medicare, Medicaid, military health care, and the Children's Health Insurance Program (CHIP), and under some state programs. Over 60 percent of the elderly and about half of the nonelderly below the poverty line received health care through the government (EBRI 2003). Only about 19.4 percent of *all* nonelderly individuals gained access to health care through the government (Fronstin 2009).

Individuals could also gain access to health care by purchasing insurance from a private company. However, only about 6 percent of the nonelderly used private, nongroup coverage for health care access (Fronstin 2009). Experience rating in this market left premiums to fluctuate by factors associated with expected health care costs (e.g., age, gender, health status, occupation, and geographic location) and disqualified individuals in poor health from coverage (Fronstin 2009).

This tripartite system left many without continuously available coverage. In 2009, about 17 percent of the U.S. population was uninsured (DeNavas-Walt, Proctor, and Smith 2010). Although as many as 43 percent of the uninsured nonelderly adult population might have been voluntarily uninsured (O'Neill and O'Neill 2009), others were victims of the structural cracks in the system and were unable to obtain insurance. They fell short in three areas: 1) they did not have access to labor markets or a firm that offered ESI, 2) they either did not qualify for government coverage or were unhealthy and could not obtain private insurance, and 3) they could not afford premiums.

Although the ACA kept the general tripartite structure for health care access in place, it fundamentally altered each of the three sources of coverage in order to accomplish three goals: 1) increase access to health care, 2) increase the quality of health care, and 3) contain costs. To achieve these goals, the policy modified existing health programs, created new structures—most notably the state-run exchanges—and integrated revised programs into new structures. I will discuss each of these three goals in order.

## Increase Access to Health Care

The ACA contains several provisions designed to expand access to health care coverage in each segment of the tripartite system. In the employment segment, the ACA developed incentives for firms to offer insurance. It requires large firms, those with at least 50 full-time-equivalent employees, to offer ESI to employees who work 30 hours per week and have at least 90 days' tenure or face potential penalties for not offering it. Firms that meet three conditions—1) fewer than 25 full-time employees, 2) payroll and average annual wages of no more than $50,000, and 3) contributions of at least 50 percent of the total premium—become eligible for tax credits of up to 50 percent of the employer contribution for purchasing coverage in one of the exchanges.

In the government segment, the ACA created a uniform minimum eligibility threshold for Medicaid that covers all individuals under age 65 with incomes up to 133 percent of the federal poverty level. It allows individuals to select coverage through a variety of plans provided by private insurers within an exchange.[1] Individuals who earn between 133 and 400 percent of the federal poverty level become eligible for tax credits to offset insurance premiums in the exchange.

In the private, nongroup segment, the ACA expanded access through provisions that generally prohibit insurers from taking any of four actions: 1) rescinding coverage once it is offered, 2) excluding individuals (and businesses) from purchasing coverage, 3) charging higher premiums based on health status and gender, and 4) denying coverage for reasons such as preexisting conditions.

## Increase the Quality of Health Care

The ACA contains several provisions to increase the quality of the plans. Plans sold through the exchanges and in small-group markets must provide a federally determined essential benefit package that includes a whole host of coverages: preventive and primary care, emergency, hospital, physician, outpatient, maternity and newborn care, pediatric (including dental and vision), medical/surgical care, prescription drugs, lab, and treatment for mental health and substance abuse. Coverage in all new plans cannot contain cost-sharing provisions for preventive services, which include blood pressure, diabetes, and cho-

lesterol tests; many cancer screenings; certain types of health counseling; certain routine vaccines; flu and pneumonia shots; pregnancy counseling, screening, and vaccines; and well-baby and well-child visits. Policies cannot contain annual or lifetime limits on benefits. In the employment segment, provisions standardized ESI quality by expanding the nondiscrimination rule to include firms with third-party insurers and implementing a 40 percent excise tax on high-end (known as "Cadillac") plans.

**Contain Costs**

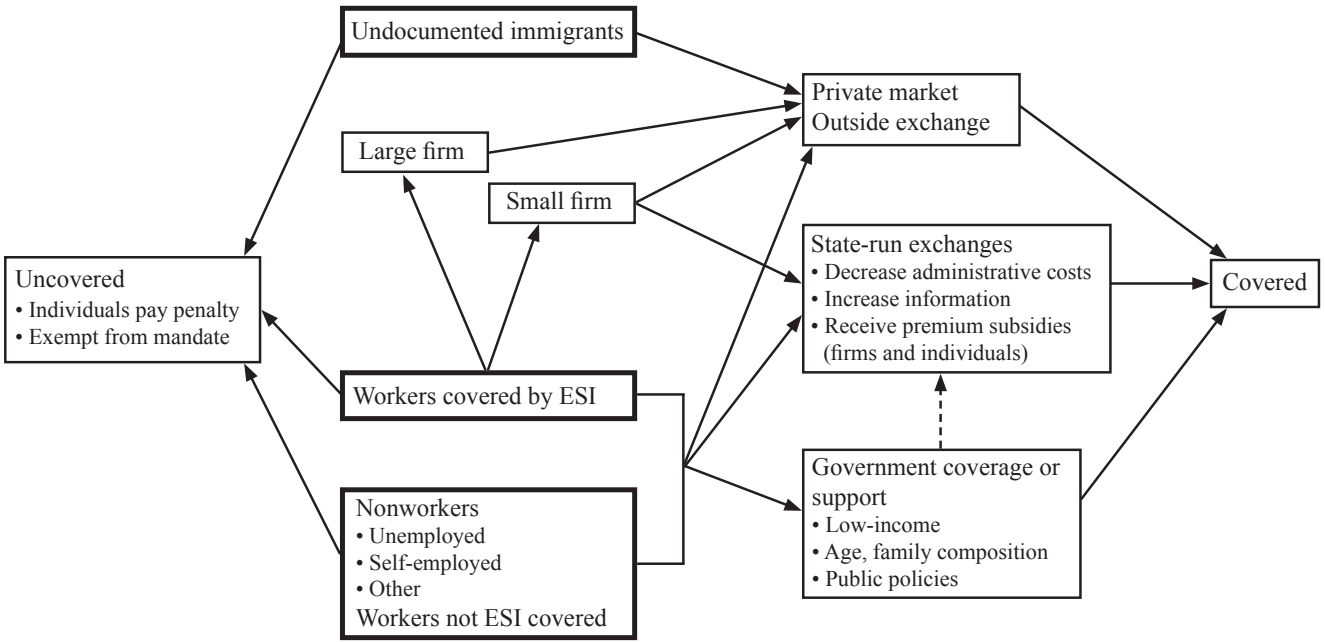
The ACA contains several provisions designed to contain costs. States must review premium increases above a threshold and exclude plans with unjustified increases from the exchanges. Insurers must offer rebates to enrollees if plans spend less than 80 (small-group market) or 85 (large-group market) percent of the premium on medical care. Provisions are aimed at increasing competition in the exchanges and bettering risk pools by including healthy individuals through the individual requirement to carry insurance.

Most individuals in the market for health care once the legislation is fully implemented will ponder a new question: "Which source of health care coverage best meets my needs?" Indeed, they and their dependents will be compelled to face this new question, because the ACA requires them to maintain minimum essential health insurance coverage or pay a penalty for noncompliance.[2] Minimum essential coverage can be any government, individual (private), or employer plan that meets the standards of the exchange.

As Figure 6.1 illustrates, individuals with the option of selecting ESI have the most choice in the post-ACA period. For most, ESI must be the most attractive option, as firms heavily subsidize the premium. Still, some individuals might find better options in the private market outside the exchanges (e.g., individuals under age 30 that want only high-deductible insurance), while others might find better options in the exchanges (e.g., those receiving premium credits) or in the government (e.g., low-wage workers eligible for Medicaid).

Individuals without access to ESI have the option of purchasing coverage in or outside the exchanges. Because insurers are generally restricted from disqualifying individuals who wish to purchase insur-

**Figure 6.1 Decision Making for Individuals after the ACA Reform**




NOTE: Thicker boxes indicate all-inclusive classifications of individuals. Dashed line indicates a coordination role. Individuals are exempt from the individual requirement to pay a penalty for not having essential coverage if they have no affordable insurance option.

ance and from differentiating between premiums using experience rating, the ability to procure coverage depends mainly on the ability to make premium payments. Individuals with low income might qualify for premium credits in the exchanges or for Medicaid coverage through the government. The elderly still qualify for government coverage through Medicare.

Simulations suggest that individuals who are uninsured will most likely be composed of five groups (Buettgens and Hall 2011). Some would be eligible for Medicaid but not enrolled (about 37 percent). Such individuals would mostly likely be singles without dependents and relatively young. Some would be undocumented immigrants (about 25 percent), although about half of these individuals might have incomes below 138 percent of the federal poverty level and be eligible for emergency care coverage by Medicaid. Some (about 16 percent) would be exempt from the individual mandate because they would not have an affordable insurance option. Such individuals would probably be older with relatively low incomes. A few (about 8 percent) would choose to be uninsured even though they are eligible for affordable subsidized coverage in the exchanges. These individuals would mostly be younger singles without dependents. And some (about 15 percent) would choose to be uninsured despite having an affordable private insurance option. Such individuals would most probably have relatively high incomes and be in families with dependents.

## ANALYZING INCENTIVES FOR FIRMS TO OFFER ESI

This research used a benefit-cost framework to describe how firms structure their ESI offer. I argued that firms having a high proportion of workers with relatively high levels of skills will benefit more from offering health insurance than firms having a high proportion of workers with relatively low levels of skills. Although most workers have an incentive to take compensation in the form of health insurance instead of wages because the coverage is often less expensive than what they could obtain in the private market and it is not subject to income taxation, the value of ESI is not equivalent for all workers. High-wage workers generally gain more from receiving nonwage compensation

than low-wage workers. Their generally higher level of income produces greater tax savings than the savings for low-wage individuals. For low-wage workers, the increased probability of eligibility for government health coverage and lower marginal tax rates often produce fewer benefits from receiving ESI as compensation. Because high (low)-wage workers are often high (low)-skilled workers and because firms have an incentive to structure their compensation package to attract workers with the skills those firms need in production, firms with high-skilled workforces have an incentive to offer health insurance, while firms with low-skilled workforces have an incentive to offer increased wages in lieu of ESI.

This study explored the relationship between workforce skills and ESI and how that relationship affected the disparities in the ESI offer in the prereform period. It used that relationship to predict how firms might change their ESI offer after the ACA is implemented, and it assessed how those changes might affect prereform ESI disparities. It predicted how firms might change their offer when the provisions of the ACA are implemented in three general areas: 1) wages or employment, 2) quality of the ESI offer, and 3) other benefits. It used education and work experience to measure skills, as opposed to the more typical use of wages, which provided a clean separation between skills and compensation.

The study drew heavily from the California Health and Employment Surveys (CHES) data of 1,427 firms which were randomly selected throughout 27 northern California counties. Information was obtained from Fall 2005 through December 2006, a period reflecting a fairly stable economy—prior to the Great Recession—and following a period of rapidly increasing health care costs. The CHES data are uniquely appropriate for studying the correlations between workforce skills and health benefits, since they contain detailed information on a firm's ESI offer, the skills of its workforce, its offer of other benefits, its size, and a host of other firm characteristics. The CHES also contains a series of questions on how firms that offered ESI responded to increased health care costs in the past and a series of questions on the reasons firms did not offer ESI.

## FIRMS' PREREFORM BEHAVIOR

The CHES data suggests that about 78 percent of firms with five or more workers offered ESI in 2005–2006. The offer, however, was generally structured so that not all workers in the firm could receive it. About 90 percent of firms required workers to wait for some period of time before they could receive an ESI offer, and about 57 percent required an employee to work more than 30 hours a week. Only about 12 percent offered ESI to temporary or seasonal workers. The ESI offer most often required workers to pay a percentage of the premium and did not allow workers a choice in the plan in which they could enroll. Workers paid 10 percent or less of the premium in only about 60 percent of firms and had a choice in the plan offered in about half. Large firms, defined as those with at least 51 workers, were more likely than small firms to offer ESI, to provide more workers with access to it, to provide workers with a choice in plans, and to offer benefits other than ESI, although they also had workers pay a larger proportion of the premium.

## THREE CHARACTERISTICS OF EMPLOYER-SPONSORED INSURANCE IN THE PREREFORM PERIOD

The plethora of information in the CHES about the firm and its ESI offer allowed me to draw three key insights about a firm's behavior with regard to ESI in the prereform period.

**1. The ESI offer differed between firms with a majority of low-skilled workers and those with a majority of high-skilled workers.** The disaggregated analysis of a firm's ESI behavior by the skills of its workforce allowed me to assess the behavioral differences between low-skilled and high-skilled firms. I used these differences to explain the ESI disparities between low-wage and high-wage workers and gain important insights about prereform behavior which indicate that the ACA, once it is fully implemented, is likely to affect disparities in ESI and other forms of compensation.

The CHES data supported the proposition that the ESI offer differed between high-skilled and low-skilled firms by showing that firms with a majority of their positions filled by low-skilled workers were less likely than other firms to offer insurance, placed more restrictions on who might receive the offer, and made a lower-quality ESI offer (defined as worker cost of coverage and choice in plans). Consider that only 67 percent of firms with a majority of low-skilled positions offered ESI compared to 83 percent of firms with a majority of high-skilled positions. Thus, we conclude that individuals working in low-skilled firms, who are likely to be disproportionately low-wage workers, are less likely to receive an offer of ESI than workers in high-skilled firms, who are likely to be disproportionately high-wage workers.

Even if a particular low-skilled firm offered ESI, the CHES data suggest that workers were less likely to receive an offer than workers in a high-skilled firm offering ESI because of more restrictive access to the offer. Workers in low-skilled firms had to work, on average, 33.3 hours per week and wait nearly 3.6 months before they could receive an offer, while workers in high-skilled firms only had to work 31.2 hours per week and wait 2.9 months before receiving an offer. Workers in only 3.5 percent of low-skilled but 18.5 percent of high-skilled firms did not have to wait before they could receive an ESI offer. In addition, a higher percentage of workers in low-skilled firms are part-time or temporary, which generally makes them ineligible for an ESI offer.

Workers in low-skilled firms generally received a lower quality ESI offer, if they received an offer, than workers in high-skilled firms. Workers in low-skilled firms paid, on average, 13.3 percent of the premium, while workers in high-skilled firms paid, on average, 7.8 percent. Workers in about half of the low-skilled firms and three-quarters of the high-skilled firms paid no more than 10 percent of the premium. Furthermore, workers in low-skilled firms generally had less choice in plans. Only about 44 percent of low-skilled firms but about 58 percent of high-skilled firms offered workers a choice in plans.

Workers in low-skilled firms also were offered fewer benefits, other than ESI, than workers in high-skilled firms. A greater percentage of high-skilled than low-skilled small firms offered workers the paid time benefits (vacation, holidays, and sick leave) that would facilitate attending to preventive and sick care visits (for example), and a greater percentage of high-skilled than low-skilled large firms offered work-

ers supplemental health benefits (dental, life insurance, and long-term disability) that complement health insurance in fostering overall health care.

**2. When health care costs increased, the vast majority of firms that offered ESI responded with actions that affected workers' compensation.** When firms that offered ESI faced rising health care costs in the prereform period, they generally adopted one of three different coping strategies, all of which directly affected their workforce: 1) decrease wages and access to the offer, 2) decrease the quality of the ESI offer, or 3) decrease other benefits. About 71 percent of all firms took one of these actions. In addition, about one-fifth increased product price or reduced the quality of their service. The typical response firms took was to reduce the quality of the ESI offer. Most of the quality reduction came by passing at least some of the cost on to workers through increased premium payments or increased cost-sharing. Nearly 70 percent of large firms and 40 percent of small firms increased the price workers paid for ESI when health care costs increased. About 20 percent of large firms and 25 percent of small firms reduced wages or access to the offer, and about 14 percent of large firms and 22 percent of small firms reduced wages or gave fewer wage increases. About 11 percent of large firms and 14 percent of small firms reduced benefits when health care costs increased.

**3. Most small firms that did not offer ESI felt its cost was too high for the firm or its workers.** Virtually all large firms (97 percent) offered ESI in the prereform period, and the ACA requires all of them to offer it in the postreform period or potentially pay financial premiums. Because large firms are provided with a negative incentive to offer ESI, it is small firms that need to be provided with positive incentives to offer it. When the CHES asked firms why they did not offer ESI, small firms offered four general categories of reasons: 1) costs (including administrative costs), 2) worker preference, 3) workforce characteristics, and 4) healthy workers. About 83 percent felt the cost of offering ESI was too high, about 60 percent felt the firm was too small or new to offer it, and over 50 percent thought their workers could not afford it. About 60 percent cited their worker characteristics—short tenure or the ability to get good workers without it—as a rationale for not offering

ESI, and about 20 percent said they had healthy workers that did not need ESI. The CHES data suggest that nearly one-third of small firms not offering ESI might be on the bubble about offering it, as about 30 percent had shopped for it in the past year, which is about the same percentage that were at least somewhat likely to offer it in the next two years. Still, a sizable proportion might not consider offering workers health insurance, as only about 16 percent perceived negative consequences from not offering ESI.

## FIRMS' BEHAVIOR AFTER THE ACA

Such information provides the backdrop for assessing the changes that the ACA might induce in the ESI offer, for it allows us to align the information in the CHES data about a firm's characteristics and its ESI offer with the ACA incentives to change behavior. The ACA contains a plethora of provisions that might cause a firm's ESI costs to increase. The ACA was designed to increase the number of workers covered by ESI in large firms and to expand the services covered in all plans, which is likely to increase premium prices. Because I believe that such changes are likely to increase ESI costs for firms that offer ESI after the ACA is fully implemented, I use the CHES data to address the question, "What are the potential consequences of ACA-induced ESI cost increases?" Although the CHES data do not contain information that would allow us to infer whether firms might drop ESI once the ACA is implemented, they do allow us to juxtapose past behavior and the provisions of the ACA, thus producing four key insights that are likely to affect health outcomes when the ACA is fully implemented.

**1. The ACA will influence the behavior of virtually all firms that offer ESI.** The ACA requires large firms to offer ESI to employees that work at least 30 hour a week and have at least three months of tenure or face potential penalties. CHES data suggest that about 56.5 percent of large firms did not meet these requirements in 2005–2006. Only about 2.4 percent failed to meet the requirement because they did not offer ESI. The remainder failed to meet it because the offer they extended did not meet the coverage requirements. Nearly half of all large firms of-

fered ESI only to employees that worked more than 30 hours per week, and about 13 percent made workers wait longer than three months. If these firms alter their ESI offer to meet the requirements of the legislation, the offer of health care will be extended to far more workers.

The ACA also included provisions that require plans to contain specified services and that require all plans offered in the exchanges or small group market to contain an essential benefit package. Thus, all firms that offer ESI might eventually be forced to change their plans to accommodate the new requirements if their prereform plans do not meet the ACA requirements for services covered, although the ACA's grandfathering clause may allow some firms to forestall this change. The 2010 EHBS data suggest that at least 95 percent of the largest-enrollment ESI plans did not meet the ACA's requirement that plans not contain cost-sharing arrangements for primary care. Furthermore, about 88 percent of the most popular ESI plans did not allow dependents to remain on the plan until age 26, an ACA requirement that became effective in January 2011, and about 66 percent had annual limits for single coverage, which, starting in 2014, the ACA does not allow.

**2. The ACA is unlikely to incentivize small firms that do not offer ESI to offer it.** Although the ACA does not require small firms to offer ESI, it provides incentives for them to offer ESI. The exchanges were designed to provide small firms with the economies-of-scale advantages held by large firms, and the tax credits for premiums to very small firms (fewer than 25 workers) paying low wages were designed to incentivize firms least likely to offer ESI to offer it. The hope is that these changes will allow small firms that did not offer ESI to offer it and will ease the financial and administrative burdens for small firms that do offer it. The 30 percent of small firms that responded that they were at least somewhat likely to offer ESI in the two years following their CHES surveying (before deliberations on the ACA began), and the explicit concerns of small firms that did not offer ESI about the premium and administrative costs, suggest the ACA's provisions might have the potential to alter behavior.

Despite these incentives, several pieces of the CHES data suggest that small firms that did not offer ESI in the prereform period might not offer it after the legislation is implemented. First, few small firms might meet the criteria for the tax credit. CHES data suggest that only about 8

percent of all small firms and 31 percent of small firms that did not offer ESI are both very small (between 5 and 19 workers) and low-skilled, which we believe are reasonable proxies for the ACA's requirements that firms have fewer than 25 full-time workers and average annual wages below $50,000 to be eligible for a partial tax credit or fewer than 10 full-time workers and average annual wages below $25,000 to be eligible for the full credit. Because only about 17 percent of small firms might be able to take advantage of the tax credits, the ACA's tax credit for premiums will incentivize only a relatively small percentage of small firms to offer or expand their ESI offer. Second, about 40 percent of the small firms that dropped ESI coverage did so because it was too expensive. If the ACA increases ESI premiums, these firms are not likely to offer it without extensive and ongoing tax credits. The ACA's tax credit covers only 50 percent of the premium payment and is available only for two years. Third, only about 16 percent of small firms that did not offer ESI perceived negative ramifications to their actions. This suggests that it might be difficult for the ACA to provide incentives that would change their behavior, since they perceive that they bear few costs from it.

**3. The difference in ESI coverage and quality of the offer made to low-wage and high-wage workers is likely to converge when the ACA is fully implemented.** CHES data show that the coverage rates and quality of the ESI were lower for workers in low-skilled firms than for workers in high-skilled firms. Workers had a greater choice of plans in high-skilled than in low-skilled firms (90 vs. 62 percent) and paid lower monthly premiums and copayments for the typical plan selected. The data also highlight that a greater percentage of low-skilled than high-skilled large firms did not meet the ACA requirements for coverage (62 vs. 58 percent). Most of the difference was accounted for by the larger percentage of low-skilled firms that required workers to wait more than three months before these workers could be offered ESI (15 vs. 5 percent).

These prereform differences in coverage suggest that low-wage workers might benefit from the expanded coverage required of large firms by the ACA. Not only are low-skilled firms less likely to have coverage requirements that are consistent with the ACA, they make up a disproportionate share of large firms. CHES data suggest that these

differences might cause about 12 percent of all low-skilled firms and 7 percent of all high-skilled firms to expand coverage or face potential penalties. This greater expansion of coverage in low- than in high-skilled firms suggests that a greater proportion of low-wage workers will gain access to ESI because of the ACA requirements.

Low-wage workers might also benefit from the ACA incentives provided to small firms to offer ESI. Low-skilled firms that did not offer ESI before the ACA were more likely than high-skilled firms to say they suffered negative consequences from not offering it and to express an interest in offering ESI in the future. Nearly 18 percent of low-skilled firms that did not offer ESI said that not offering it had a large or very large negative impact on some part of their business operations (compared to 1 percent of high-skilled small firms). Perhaps as a result, over 27 percent of low-skilled small firms that did not offer ESI said they were at least somewhat likely to offer it next year (compared to 20 percent of high-skilled small firms). If low-skilled firms are more likely to feel negative consequences from not offering ESI and have a greater interest in offering it, they might be more willing to offer it with the ACA-provided incentives of tax breaks, the economies of scale with the exchanges, and the requirement that individuals have insurance (increased worker demand).

In contrast, high-wage workers might be the casualties of the ACA's attempt to standardize quality. For one thing, the ACA invokes a 40 percent excise tax on "Cadillac" plans with premiums above a certain threshold (and typically containing low deductibles and expansive service coverage). The excise tax might force firms to decrease the plan's quality to avoid the tax or increase the premium price workers pay to include the tax. In either case, the quality of the offer from the workers' vantage point would decrease and, if Cadillac plans are offered more in high-skilled than in low-skilled firms, the quality decline would affect high-wage workers more than low-wage workers. Furthermore, high-skilled large firms were more likely than other large firms to lower the quality of their ESI offer when health care costs increased. This suggests that, if the ACA increases the ESI costs, high-skilled firms might respond by lowering the quality of their offer, which would bring it closer to the existent or improved coverage of low-skilled firms by reducing the quality of the offer for high-wage workers.

**4. Disparities in the offer of benefits other than ESI might increase between low-wage and high-wage workers.** CHES data suggest that convergence in the coverage and quality of the ESI offer between low-skilled and high-skilled firms after the ACA is implemented might be accompanied by a divergence in the offer of other benefits. During the prereform period, workers in low-skilled firms of all sizes received fewer benefits than workers in high-skilled firms, particularly in the area of paid time (vacation, holidays, and sick leave), supplemental health (dental, life, long-term disability, and vision insurance), and pensions. When health care costs increased in the past, high-skilled firms of all sizes were less likely than other firms to respond in a manner that would decrease their offer of benefits. Given disparities in benefits between low-skilled and high-skilled firms prior to the ACA, and the reluctance of high-skilled firms to reduce non-health benefits when health care costs increase, any ACA-induced change that increases ESI costs might initiate a trajectory of divergence in benefits other than ESI between low-skilled and high-skilled firms. As a result, disparities in benefits offered to low-wage and high-wage workers would increase. CHES data also suggest that large high-skilled firms were less likely than other firms to reduce wages and employment, meaning high-wage workers might be more sheltered than low-wage workers in these areas as well if health care costs increase.

## BEYOND CHES: POSTREFORM CONSIDERATIONS

The CHES data afforded a unique opportunity to assess how the ACA might alter a firm's offer of health insurance, the nature of compensation that it provides workers, and prereform disparities in ESI and other benefits. Our analysis of firms' behavior prior to deliberations at the federal level about the ACA and our juxtaposition of past behaviors with provisions of the ACA provide thought-provoking insights into the potential consequences—both anticipated and unanticipated—that the ACA might impart.

The CHES, like all data sets, contains limitations in its ability to predict and, like all data sets constructed before enactment of the ACA, contains limitations in its ability to assess the ACA's potential for

change. These limitations alone leave several potential consequences of the legislation unaddressed or underaddressed. Perhaps the most important ESI-related outcome that was not explored in this research is the potential for firms that offer ESI to drop it. The CHES data cannot be used to examine whether firms will drop ESI, and surveys and reports published after the ACA's passage reach vastly different conclusions about its potential impact on firms' decisions to maintain ESI coverage. Indeed, post-ACA predictions about offers are so disparate that almost any preconceived opinion of the legislation could be justified using one of the studies. Some studies predict dire consequences from the ACA by highlighting the potential for vast numbers of firms to drop coverage.

The popular press was quick to publicize the possibility of firms dropping ESI when the ACA was enacted (Alonso-Zaldivar 2010). Some surveys have shown that about 30 percent of employers will definitely or probably drop ESI after 2014 (Singhal, Stueland, and Ungerman 2011), when the major provisions are implemented. Other surveys have shown that about 29 percent of firms are unsure about continued sponsorship of ESI (Towers Watson 2011). Yet other surveys have suggested less dire consequences: between a 6 percent (for firms with 500 or more workers) and 20 percent (for firms with 10 to 499 workers) drop in offers (Mercer 2010). Microsimulations have produced the least dramatic change in offers, ranging from a 2.5 percent drop in coverage (Gruber 2010) to a 2 percent increase (Garrett and Buettgens 2011) for firms with more than 1,000 workers. More mixed-method approaches suggest targeted declines in ESI offers in which low-wage workers would face the steepest declines, irrespective of firm size (Avalere Health 2011).

Predictions about increasing premium prices coming as a result of the ACA are as disparate as the predictions about coverage. Urban Institute simulations (Garrett and Buettgens 2011) suggest that employer spending on premiums would be 8.7 percent lower for small firms (100 or fewer workers) because of SHOP, 11.8 percent higher for firms with 101 to 1,000 workers, and unchanged for firms with more than 1,000 workers. Prior to the passage of the ACA, the CBO's analysis of its potential impact suggested that premiums might increase 10 to 13 percent in the nongroup market, 1 to 2 percent in the small-group market, and decrease in the large-group market (CBO 2009), although it surmised that the full 40 percent excise tax might be passed on as a pre-

mium increase for the 60 percent of firms that could potentially reach its current thresholds (Towers Watson 2011). All estimates are net of cost increases that might come if more workers take the firm's ESI offer with the individual requirement to carry insurance or that might stem from increased worker coverage (under the 30 hours a week and three months of tenure requirement) or the potential financial penalties.

Two items should perhaps be noted in the discussion of premium increases. First, changes in premium costs might vary from firm to firm and depend on employee demographics, current plan design, and the health care market in which the firm operates. Firms with plans or coverages that are far from the ACA requirements might see large increases in premium payments and health care costs, while those with plans and coverages that exceeded the requirements in the prereform period might see little change, assuming they do not fall into the Cadillac category.

Second, the primary restraint on costs lies with the U.S. Department of Health and Human Services (HHS), in collaboration with state insurance departments. The HHS and states are charged with conducting the annual reviews of "unreasonable increases in premiums" for nongrandfathered health plans. States differ in their ability to conduct such a review, however. Not all states have the prior approval authority to undertake such reviews, and a great deal of variety exists in the practices for conducting such reviews (Kaiser Family Foundation 2010a). Thus, part of ensuring that the review process is effective might be to give explicit authority to states to review rates, to provide the regulatory resources needed to conduct reviews, and to build a culture of active review within all states.

Arguably, one of the biggest concerns about the success of the ACA lies in the sustainability of the centerpiece of the reform, the exchanges. The exchanges make sense conceptually. By banding together members of the small-group market, they have the potential to emulate the large-group market in the following ways: create sizable and stable risk pools, minimize adverse selection, provide strength in bargaining with insurers, and utilize economies of scale in administration. Yet past efforts at creating exchanges have often failed, as they became the victim of adverse selection (Jost 2010 provides discussion). Because the ACA allows both individual and group markets to function outside its boundaries, it did not eliminate the potential for adverse selection within the exchanges: low-risk individuals can purchase coverage outside their

boundaries, perhaps at a lower price. The case for healthy individuals under 30 who want catastrophic coverage outside the exchanges exemplifies the worry that exchanges might suffer from adverse selection and thus fall victim to the same fate as past exchanges. Still, the legislation contains some provisions that might avert adverse selection in the exchanges. Most prominent are the individual requirement to have minimal essential coverage, the premium-assistance and tax credits for small firms that exist only for exchange plans, the applicability of many of the reforms to plans both inside and outside the exchanges, and the essential health benefit requirements for *all* individual and small-group plans that are equivalent to a typical employer's plans. If effective, such requirements are likely to create solid risk pools in the exchanges and reduce adverse selection in their operation.

Finally, every policy ever implemented has produced unanticipated consequences, and reforms as large as health care reform under the ACA are bound to have consequences that are as yet unknown. This research hinted at two potential unanticipated (and even undiscussed) consequences of the ACA. First, it demonstrated a potential for price increases by showing that over 20 percent of CHES firms increased their product prices or decreased their service quality with past health care cost increases. Second, it highlighted the potential for an increased divergence between low-wage and high-wage workers in the offer of benefits other than ESI. Because I make no claim of possessing Nostradamus-like powers, I leave it to future researchers to verify these possibilities and to explore the process of identifying other consequences.

Of course, because my study focuses only on ESI, it cannot address the plethora of other problems that plagued the prereform tripartite system of health care in the United States. Nor can it address the potential of the ACA to increase access, quality of the insurance plan or health care, and affordability of health insurance through other venues, or to contain rising health care costs. All I can do is provide evidence of how the incentives placed before firms in the prereform era might have affected low-skilled workers and highlight how those incentives might change with the passage of the ACA. The debates on health care reform that led to the ACA frequently focused on a lack of access to employment-based insurance among low-wage workers, for such lack of access has implications not only for health care but also for economic insecurity.

I hope the results of this study can help focus debate on the incentives that firms face in offering insurance and the potential consequences of these incentives for low-wage workers. Given the public health ramifications of *not* ensuring universal health care access and the human capital potential available from maintaining a healthy workforce, a broader perspective must be addressed for the health and wealth of our nation.

## Notes

1. Undocumented immigrants are explicitly barred from purchasing coverage in the exchanges.
2. Exemptions from the requirement exist for individuals who do not earn enough to pay income tax or who would spend more than 8 percent of their annual income on coverage, recipients of hardship waivers, members of Native American tribes, undocumented immigrants, religious objectors, and incarcerated populations.

# Appendix A
# The California Health and Employment Surveys

Survey Number_____

# Health and Employment Survey

*Hello. My name is <_____> and I am calling from the HIRE Center at Cal State, East Bay. The Upjohn Institute has funded us to conduct* ***academic*** *research on benefits offered to workers in California firms. I have just a few questions I would like to ask you. Are you the person with knowledge about benefits and jobs in your firm? (If not, could I talk with someone like the Business Manager or Human Resources Officer that could answer these questions?) The questions will only take about 10 to 15 minutes and all information will be strictly confidential. Do you have some time now* ***to help us out*** *with our research? Your participation is strictly voluntary and you can terminate the survey process at any point. Neither you nor your firm will be identified in any reporting of data. Any responses given will be aggregated for reporting purposes only.*

| | | |
|---|---|---|
| **TIME:** (military) | Began: Ended: | **Date:** |
| **Surveyor:** | | |
| **County:** | | |

*First, I'd like to verify your contact information so we can thank you for participating in our survey.*

| | | |
|---|---|---|
| **Phone number:** | | NAICS code (**if blank ask what firm does**): |
| **Firm name:** | | |
| **Address:** | Street: | City, state, and zip code: |
| **Respondent**: | | |
| **Position**: | | |

***Screening questions:*** *I'd like to ask you a couple questions to see if you fit into our sampling frame.*

| | | | | |
|---|---|---|---|---|
| Sc1: Are you a for-profit or nonprofit company? (**Check which**.) | ☐ For profit<br>☐ Nonprofit [501(c)(3)] | ☐ Government (federal, state, city, county) **END SURVEY** | ☐ Other: (verify eligibility before proceeding) | |
| Sc2: How many workers are there **at *THIS* location**? | ☐ 1–4 **(END SURVEY)**<br>☐ 5–9<br>☐ 10–19 | ☐ 20–50<br>☐ 51–99 | ☐ 100–299<br>☐ 300–499 | ☐ 500–999<br>☐ 1,000+ |
| Sc3: Does your firm operate at more than one location? | | ☐ Yes | ☐ No (**Start survey**) | |
| Sc3A: Are the locations . . . ? | ☐ Multinational<br>☐ National | ☐ Regional (western U.S.)<br>☐ California | ☐ Local (northern CA)<br>☐ Other: | |
| Sc3B: Are benefits set at the central location or at your location? | ☐ Central location | ☐ Respondent location | ☐ Respondent location is central | ☐ Other (specify): |
| Sc3C: How many workers are **at *ALL* locations**? (Count all workers including part-time/full-time, temporary/ permanent, *that are paid by the firm.*) | ☐ 1–4 **(END SURVEY)**<br>☐ 5–9<br>☐ 10–19 | ☐ 20–50<br>☐ 51–99<br>☐ 100–299 | ☐ 300–499<br>☐ 500–999<br>☐ 1000–1999 | ☐ 2000–4999<br>☐ 5000–9999<br>☐ 10,000+ |

| | | |
|---|---|---|
| *Verify need before proceeding*<br>**Type firm:** (base on **who sets benefits**) | ☐ Small (5–50) | ☐ Large (51+) |

Survey Number_____

Call Log

| Date and time: | Notes (e.g., reason not surveyed, when to call back) |
|---|---|
| | |
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| | |
| SURVEYOR NOTES: | |

## *After survey has been disposed of:*

| **Circle disposition code** |
|---|
| 1. Survey complete |
| 2. Refusal |
| 3. Left 15 or more messages |
| 4. Quota met |
| 5. Other, specify: |

**Complete Information about the Respondent and Survey**

| | | | | | |
|---|---|---|---|---|---|
| About the: respondent | Gender: ☐ Male | ☐ Female | Perceived accuracy of survey responses: ☐ Accurate | ☐ Some inaccuracies (explain) | |
| About the survey: | Attempts before surveyed: | Minutes: | Comments: | | |
| Sign-off initials: | Surveyor: | Lead surveyor: | Field check: | Occupational coding: | Data entry: |

SC-2

Survey Number_____

***Section A: Benefits.*** *We would like to ask you some questions about the benefits you* ***offer*** *workers beyond those mandated by the government. Please answer yes if your firm offers the benefit or no if it does not.*

| **Does your firm offer workers . . . ?** | | | |
|---|---|---|---|
| 1. Paid vacation | ☐ Yes | ☐ No | ☐ DK |
| 2. Paid holidays | ☐ Yes | ☐ No | ☐ DK |
| 3. Paid sick leave | ☐ Yes | ☐ No | ☐ DK |
| 4. Flexible hours | ☐ Yes | ☐ No | ☐ DK |
| 5. Shift differentials or premium pay (include dangerous, dirty, and hazardous pay) | ☐ Yes | ☐ No | ☐ DK |
| 6. Nonproduction bonuses (e.g., lump-sum payments, referral bonuses) | ☐ Yes | ☐ No | ☐ DK |
| 7. Severance pay (where needed) | ☐ Yes | ☐ No | ☐ DK |
| 8. Supplemental unemployment plans | ☐ Yes | ☐ No | ☐ DK |
| 9. Life insurance | ☐ Yes | ☐ No | ☐ DK |
| 10. Long-term disability insurance | ☐ Yes | ☐ No | ☐ DK |
| 11. Defined benefit retirement | ☐ Yes | ☐ No | ☐ DK |
| 12. Defined contribution retirement | ☐ Yes | ☐ No | ☐ DK |
| 13. Retiree health coverage (including Supplemental Health Insurance) | ☐ Yes | ☐ No | ☐ DK |
| 13a. (*If yes*) Does the plan cover workers under age 65? | ☐ Yes | ☐ No | ☐ DK |
| 14. Formal job training (e.g., classes) | ☐ Yes | ☐ No | ☐ DK |
| 15. Financial assistance for education | ☐ Yes | ☐ No | ☐ DK |
| 16. Financial assistance for child care | ☐ Yes | ☐ No | ☐ DK |
| 17. Cafeteria plans in benefit selection (aka Section 125 plans) | ☐ Yes | ☐ No | ☐ DK |
| 17a. (*If yes*) Is health insurance an option under your cafeteria plan? | ☐ Yes | ☐ No | ☐ DK |
| 18. Does your firm offer health benefits? | ☐ Yes | ☐ No | ☐ DK |
| 18a. (*If yes)* Are seasonal/temporary workers eligible for health benefits? | ☐ Yes | ☐ No | ☐ DK |
| 18b. (*If DK)* Can I talk to someone that knows about health benefits? (Continue only with a person knowledgeable about health benefits.) | ☐ Yes | ☐ No (**END SURVEY**) | |
| 19. Vision insurance (apart from the health insurance plan) | ☐ Yes | ☐ No | ☐ DK |
| 20. Dental insurance (apart from the health insurance plan) | ☐ Yes | ☐ No | ☐ DK |
| 21. Mental health/substance abuse (outpatient or inpatient, include EAP—Employee Assistance Plans) (apart from the health insurance plan) | ☐ Yes | ☐ No | ☐ DK |
| 22. Long-term health care (e.g., nursing home care) (apart from the health insurance plan) | ☐ Yes | ☐ No | ☐ DK |
| 23. Are all workers offered the same benefits? | ☐ Yes | ☐ No | ☐ DK |
| 23a. (*If no*) What are the differences (e.g., skilled craftsman have long-term disability, professional staff have flexible hours)? | | | |
| 24. Have benefits ***other than the health plan*** changed in the last year? | ☐ Yes | ☐ No | ☐ DK |
| 24a. (*If yes*) How they have changed (e.g., decreased overtime, increased employer payment for pension)? | | | |

Survey Number_____

***Section B: No Health Benefits.*** **Ask only if firms do not offer health benefits (Q18 is No).**

| | | | |
|---|---|---|---|
| 25. Has your firm offered health insurance in the past five years? | ☐ Yes (Go to Q25B) | ☐ No (Go to Q25A) | ☐ DK (Go to Q25A) |
| 25a. (*If no or DK*) Firms not offering health insurance to workers may be affected by rising health care costs. How do you think your firm might have been affected by rising health care costs? (Go to Q26) | | | ☐ No effect |
| 25b. (*If yes*) Why did your firm drop its coverage? (**READ** and check **ALL** that apply.) ○ Coverage too expensive/ cost too much ○ Workers had other coverage ○ No need for company to offer it ○ Business not doing well ○ Other: ○ Too few workers signed up/did not want ○ Could no longer afford coverage ○ Economy | | | |
| 26. How likely is it that you will offer health insurance in the next two years? | ☐ Very likely | ☐ Somewhat likely | ☐ Not likely |
| 27. Has your firm shopped for health insurance in the past year? | ☐ Yes | ☐ No | ☐ DK |

*We are interested in knowing why your firm does not offer health insurance. On a scale where 1 is "Not at all important" and 5 is "Very important," please say why your firm does NOT offer health insurance to its workers.*

| | Not at all important | | | | Very important | |
|---|---|---|---|---|---|---|
| 28. Premiums were too high | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 29. Worker turnover is too high | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 30. Workers are generally covered under another plan (e.g., by a spouse or parent) | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 31. The firm can attract good workers without offering health insurance | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 32. The firm is too small or new | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 33. The firm has (or had) a seriously ill worker | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 34. Setting up a plan is too complicated and time-consuming | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 35. Revenue is too uncertain to commit to a plan | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 36. Business cannot afford it | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 37. Workers cannot afford it | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 38. Workers are healthy and do not need it | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 39. Workers prefer wages and/or other benefits | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 40. Don't need to offer a health insurance plan to recruit and retain good workers | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 41. Workers are temporary, part-time, or worker turnover is high | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 42. Don't know where to go for information on starting a health insurance plan | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 43. What are other reasons for your not offering health insurance: | | | | | | ☐ none |

*Now I'd like to ask you some questions on the impact NOT offering health insurance has on your workforce. On a scale where 1 is "Virtually no impact" and 5 is a "Very large impact," please rate the following:*

| | Virtually no impact | | | | Very large impact | |
|---|---|---|---|---|---|---|
| 44. Worker recruitment | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 45. Worker retention (turnover) | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 46. Worker attitude and performance | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 47. The health of your workers | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 48. Absenteeism | 1 | 2 | 3 | 4 | 5 | ☐ DK |
| 49. The overall success of your business | 1 | 2 | 3 | 4 | 5 | ☐ DK |

**Go to Q82, Section E, Page 5**

***Section C: Health Care Costs.*** **Ask only if firms offer health benefits (Q18 is Yes).**

*Because health care costs have risen in the past few years, we are interested in getting your impressions of what your firm has done in the past 3–5 years about escalating health care costs. We would like you to answer "Yes" to our question if you think the action we mention is one your firm has taken and "No" if it has not.*

| | | | | | |
|---|---|---|---|---|---|
| **In response to rising health care costs, did your firm decrease or eliminate . . . ?** | | | | | |
| 50. Nonhealth benefits (e.g., pensions, vacations) | ❑ | Yes | ❑ | No | ❑ DK |
| 51. Health insurance coverage (e.g., services covered like pharmaceuticals) | ❑ | Yes | ❑ | No | ❑ DK |
| 52. Vision insurance | ❑ | Yes | ❑ | No | ❑ DK |
| 53. Dental insurance | ❑ | Yes | ❑ | No | ❑ DK |
| 54. Other health-related coverage (e.g., substance abuse, mental health) | ❑ | Yes | ❑ | No | ❑ DK |
| 55. Number of health plans offered to workers | ❑ | Yes | ❑ | No | ❑ DK |
| 56. Types of health plans offered to workers (e.g., PPO to HMO) | ❑ | Yes | ❑ | No | ❑ DK |
| **In response to rising health care costs, did your firm . . . ?** | | | | | |
| 57. Change health insurance carriers (e.g., from Blue Shield to Health Net) | ❑ | Yes | ❑ | No | ❑ DK |
| 58. Start a health reimbursement arrangement (i.e., HRA) | ❑ | Yes | ❑ | No | ❑ DK |
| 59. Start a flexible spending account for workers' health care expenses (i.e., FSA) | ❑ | Yes | ❑ | No | ❑ DK |
| 60. Move to a high-deductible health insurance plan (catastrophic coverage only, a.k.a. HDHP) | ❑ | Yes | ❑ | No | ❑ DK |
| 61. Contribute to a worker's health savings account (i.e., HSA, medical savings account, MSA) | ❑ | Yes | ❑ | No | ❑ DK |
| **In response to rising health care costs, did your firm increase the . . . ?** | | | | | |
| 62. Amount or percentage of the premium the worker pays for his or her own health coverage (i.e., premium paid by worker) | ❑ | Yes | ❑ | No | ❑ DK |
| 63. Amount or percentage of the premium the worker pays for health coverage for other family members | ❑ | Yes | ❑ | No | ❑ DK |
| 64. Copayment or coinsurance under health coverage (e.g., pharmaceuticals, office visit) | ❑ | Yes | ❑ | No | ❑ DK |
| **Health care costs can impact different things other than health benefits. In response to rising health care costs, did your firm . . . ?** | | | | | |
| 65. Increase its prices (or reduce its services) | ❑ | Yes | ❑ | No | ❑ DK |
| 66. Give fewer raises or reduce wages | ❑ | Yes | ❑ | No | ❑ DK |
| 67. Reduce its workforce (i.e., the number of workers) | ❑ | Yes | ❑ | No | ❑ DK |
| 68. Increase the hours a week a worker must work to receive health benefits | ❑ | Yes | ❑ | No | ❑ DK |
| 69. Increase the length of time a worker is with the firm before receiving benefits | ❑ | Yes | ❑ | No | ❑ DK |
| 70. Use more workers not eligible for health benefits—for example, use more part-time, temporary, or outsourced workers or increase the hours or number of workers. | ❑ | Yes | ❑ | No | ❑ DK |

***Section D: Health Insurance.*** **Ask only if firms offer health benefits (Q18 is Yes).**

*We would now like to ask some specific questions about the health insurance you offer to your workers.*

71. Does your firm purchase insurance from a private insurer, are you self-insured, or do you use an MEWA?
(**Check which**. If none, ask how to you purchase your health benefits.)

○ Self-insured ○ Private market (broker) ○ Multiple Employer Welfare Association (MEWA) (e.g., cooperative or alliance, business coalition, employer/welfare association, trade or professional association) ○ Other:

72. How many different health care plans do you offer workers? # ☐ DK

73. We would like to know what kinds of plan(s) you offer workers. Do you offer . . . ? (*If yes, ask how many.)*

○ Conventional (includes indemnity) #_____ ○ Health maintenance organization (HMO) #_____ ○ Preferred provider organization (PPO) #_____ ○ Point-of-service (POS) or hybrid plan #_____ ○ Other: _____

***Surveyor Note**: Numbers in Q72 MUST EQUAL all numbers added together in Q73.*

74. We are interested in knowing about the health care plan most workers select. What is the name of the carrier?

☐ Kaiser ☐ Aetna ☐ Blue Cross ☐ Blue Shield ☐ Catholic Health Care ☐ Health Net ☐ United Health Care ☐ Other:

75. Is the plan a . . . ? ☐ Conventional ☐ HMO ☐ PPO ☐ POS/hybrid ☐ Other:

75a. *(If more than one plan)* Is this the low cost (to worker) health care plan? ☐ Yes ☐ No ☐ DK ☐ NA

| | | ***How has it changed in past year?*** | ***If it changed,*** *what was the percentage change in past year?* |
|---|---|---|---|
| 76. How many months must new workers wait before they can enroll in health benefits? | months | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 76a. Comments: | | | |
| 77. How many hours a week must workers work before they can enroll in health benefits? | hours | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 77a. Comments: | | | |
| 78. What is the premium the firm pays <TYPICAL PLAN> for the single worker? (**Surveyor**: Note time period: month, year, etc.) | $ per | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 78a. Comments: | | | |
| 79. What is the amount the worker contributes to health insurance premiums for coverage for the single worker? | % or $ | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 79a. Comments: | | | |
| 80. What is the copayment or coinsurance workers pay for a physician office visit in <TYPICAL PLAN>? | % or $ | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 80a. Comments: | | | |
| 81. What is the copayment or coinsurance workers pay for pharmaceuticals in <TYPICAL PLAN>? | % or $ | ❑ No change ❑ Increased ❑ DK ❑ Decreased | % |
| 81a. Comments: | | | |

***Section E: Firm characteristics:*** **Ask of everyone.** *Let's switch gears for a minute. We would like to know a bit more about your firm.*

| | | | |
|---|---|---|---|
| 82. In the past year, **has** your firm's workforce (at location) . . . ? | ☐ Increased | ☐ Decreased | ☐ Stayed same |
| 83. In next five years, **will** your workforce (at location) . . . ? (i.e., what are your expectations about future growth?) | ☐ Increase | ☐ Decrease | ☐ Stay same |
| 84. About how many years has your firm been in business? **(NOT just at this location)** | ☐ Less than 3 years | ☐ 3–5 years<br>☐ 6–10 years | ☐ 11–20 years<br>☐ > 20 years |

**Ask Q85 to Q91 if firm is "small" (50 or fewer workers).**

| | | | |
|---|---|---|---|
| 85. Do you purchase your health insurance through Pac Advantage? | ☐ Yes | ☐ No | ☐ DK |

We would like to know a little bit about the demographics of your workforce. **Can you please tell me what percentage of your workforce is . . .**

| | | | | |
|---|---|---|---|---|
| 86. Female? | ☐ 0–33% | ☐ 34–66% | ☐ 67–100% | ☐ DK |
| 87. 25 or under? | ☐ 0–33% | ☐ 34–66% | ☐ 67–100% | ☐ DK |
| 88. 55–64? | ☐ 0–33% | ☐ 34–66% | ☐ 67–100% | ☐ DK |
| 89. Married? | ☐ 0–33% | ☐ 34–66% | ☐ 67–100% | ☐ DK |
| 90. How many dependents, on average, does a worker have, including his or her spouse? | | | | # |
| 91. In the past year, how has the demographic composition of workers changed (age, dependents, and gender)? | | | | ☐ No change |

***Section F: Workforce Composition.*** **Ask of everyone.** *Finally, we would like to ask a few questions about the different types of positions you have. We are particularly interested in learning about positions requiring different levels of education and work experience. In answering these questions, we would like you to think about ALL the positions in this firm at this location and to classify them by the education and training level required of workers when they start the job.*

| | **Entry-level position** *(no more than a high school education and no more than one year of work experience)* | **Mid-level position** *(some college and/or some work experience* [maybe 1–3 years]) | **High-level position** *(at least a college degree and/or extensive work experience)* |
|---|---|---|---|
| 92. What percentage of ALL workers are in <entry-, mid-, or high-level> positions? Please include anyone working on-site, such as temp help and contract workers. (*If 0%, do not ask Q about that position.*) | % ☐ 0 | % ☐ 0 | % ☐ 0 |
| 93. If Q92 < 100%, does the firm have another category of position with a large number of workers? | ☐ Yes | ☐ No | |
| 93a. What are the education and work experience requirements for this position? | | | |
| 94. In the past year, how has the percentage of workers in <entry-, mid-, or high-level> positions changed? | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK |
| 95. Of ALL workers in <entry-, mid-, or high-level>, what percentage are part-time, temporary, paid interns, consultants, outsourced, or contract workers? (Part-time are those not eligible for health benefits.) | ☐ 0% ☐ 1–33% ☐ 67–100% ☐ 34–66% ☐ DK | ☐ 0% ☐ 1–33% ☐ 67–100% ☐ 34–66% ☐ DK | ☐ 0% ☐ 1–33% ☐ 67–100% ☐ 34–66% ☐ DK |
| 96. In the past year, how has the percentage of part-time, temporary, consultants, outsourced, or contract workers in <entry-, mid-, or high-level> positions changed? | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK |
| 96a. (*If increased or decreased*) Which areas changed? (***Surveyor note:*** "outs" are consultants, outsourced, or contract workers.) | ☐ Part-time ☐ "Outs" ☐ Temps ☐ DK | ☐ Part time ☐ "Outs" ☐ Temps ☐ DK | ☐ Part-time ☐ "Outs" ☐ Temps ☐ DK |

*We are almost done . . . To help us find out about more specific information about the types of workers in positions at different levels, we would like to ask a few questions about one specific job at each level. For this, we would like you to think about the typical job that someone holds at each level. By "typical job," we mean the one that most workers hold.*

| | **Entry-level position** ☐ **No positions** | **Mid-level position** ☐ **No positions** | **High-level position** ☐ **No positions** |
|---|---|---|---|
| **For coder**: occupational coding | | | |
| 97. What is the job title of the **typical** job in <entry-, mid-, or high-level> position for workers employed by this firm (at this location)? | ☐ N/A | ☐ N/A | ☐ N/A |
| 98. Describe the duties of someone in <JOB TITLE>. (if job title doesn't describe duties) | ☐ N/A | ☐ N/A | ☐ N/A |
| 99. What percentage of <entry-, mid-, or high-level> workers are <JOB TITLE>? | ☐ 0–33% ☐ 34–66% ☐ 67–100% ☐ DK | ☐ 0–33% ☐ 34–66% ☐ 67–100% ☐ DK | ☐ 0–33% ☐ 34–66% ☐ 67–100% ☐ DK |
| 100. How easy is it for you to attract workers with skills needed in <JOB TITLE>? | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard |
| 101. How easy is it for you to keep workers in <JOB TITLE>? | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard | ☐ Very easy ☐ A little easy ☐ A little hard ☐ Very hard |
| 102. What is the average wage in <JOB TITLE>? Refused to answer___ | $_____per_____ (e.g., $9.85 per hour) | $_____per_____ (e.g., $9.85 per hour) | $_____per_____ (e.g., $9.85 per hour) |
| 103. Are wages in <JOB TITLE> covered by collective bargaining? | ☐ Yes ☐ No ☐ DK | ☐ Yes ☐ No ☐ DK | ☐ Yes ☐ No ☐ DK |
| 104. Can workers in <JOB TITLE> get things like commissions or tips to augment their wage? | ☐ Yes ☐ No ☐ DK | ☐ Yes ☐ No ☐ DK | ☐ Yes ☐ No ☐ DK |
| 105. In the past year, how have wages in <JOB TITLE> changed? | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK | ☐ Increased ☐ Same ☐ Decreased ☐ DK |
| 105a. (*if increase or decrease*) By what percentage did wages change in the past year? | % ☐ DK | % ☐ DK | % ☐ DK |

***Thank you very much for completing this survey.*** **Surveyor Note:** Add any comments here and continue on back.

# Appendix B
# Factor Analysis

I used four factor analyses to distill the large volume of information in the CHES into a few patterns that can be used to describe the behavior of firms. One factor analysis grouped into strategies the responses large firms took in the face of increasing health care costs. A second examined how large firms grouped the benefits they offered to workers. A third examined the motivations small firms gave for not offering ESI. The fourth grouped into strategies the responses small firms took when faced with increasing health care costs.

Factor analysis does not use *a priori* conceptualizations about how firms behave to categorize information. Rather, it produces categorizations that reflect the self-reported behavior of firms, which allows us to verify any *a priori* conceptualizations (e.g., our categories of how firms respond to increased ESI expenditures) and to identify patterns in which we have no *a priori* conceptualization (e.g., grouping of benefits).

Factor analysis assumes that a system of constructs (that is, patterns) exists in the CHES measures of firm behavior and that the constructs underlie actual behavior. The empirical measures of the constructs that are estimated from the factor analysis, called factors, account for the correlations in the CHES measures of how a firm responded to rising health care costs (for example).[1] In other words, factor analysis identifies the latent dimensions of behaviors that explain why the CHES measures would be correlated, and we interpret the factors as a grouping of behaviors that can be categorized.

Factors are identified using the factor structure matrix, also known as the factor loading. This matrix of $n$ (number of measures of firm behavior) by $m$ (number of retained factors) shows the correlations between the measures of firm behavior and the estimated factors.[2] The factor score computed from the factor analysis measures, in relative terms, the importance of a firm's individual behavior in the factor analysis–determined grouping (i.e., the particular factor).[3] The factor score is computed as a linear combination of the individual variables times a weight derived from the factor loading; it measures how many of the behaviors in the grouping the firm undertook. A relatively high and positive factor score indicates that the firm undertook most of the behaviors in the factor-identified grouping. A relatively large negative score indicates that the behaviors identified in the grouping generally were not ones the firm undertook. I used the variables with a factor score of at least 0.5 to categorize groups.[4] If the grouping corresponds to our *a priori* grouping, we would con-

sider it support for our categorization. Should we have no *a priori* conceptualization, the factor-identified grouping provides structure for a categorization.

I used the information on the variance explained by each factor as a measure of the goodness-of-fit of the factor-determined grouping and of the overall categorization to the data. Specifically, I used the ratio of the sum of the variance explained by each factor to the number of variables as an overall goodness-of-fit measure, and the ratio of the individual factor variance to the overall variance as a relative measure of its contribution to the analysis.

## LARGE FIRMS' GROUPING OF BENEFITS

My factor analysis of the 10 benefits that firms offered (1 = offered, 0 = did not) produced three factors that explained about 56 percent of the variance in the benefits offered (Table B.1). We describe each of these factors in declining order of their ability to explain the behavior of large firms in offering benefits.

The first factor, which I call *supplemental health benefits*, suggests that a group of firms bundles a group of health-related benefits other than ESI. Benefits in this bundle include vision, dental, life, and long-term disability insurance. This grouping accounts for about 22 percent of the variation in firms' offering of benefits.

The second factor, which I call *paid time benefits*, suggests that firms group paid time off as a package. Benefits in this bundle (i.e., those loading at 0.5 or higher) include paid vacation, paid holidays, paid sick leave, and pensions. This grouping accounts for about 20 percent of the variation in firms' offering of benefits.

The third factor, which I call *long-term health benefits*, suggests that firms group health benefits for workers that these workers would use over the longer term. Benefits in this bundle include those that allow individuals to insure against needing long-term health care (e.g., nursing home) and aging (retiree health). This grouping accounts for 13.7 percent of the variation in firms' offering of benefits.

The pension variable loaded fairly equally on each of these three factors.

## LARGE FIRMS' STRATEGIES FOR RESPONDING TO INCREASED HEALTH CARE COSTS

My factor analysis of the 16 actions large firms said they took when health care costs rose (1 = took the action, 0 = did not) produced five factors that

explained about 56 percent of the variance in the actions they took (Table B.2). I describe each of these factors in declining order of their ability to explain the behavior of firms.

The first factor, which I call *benefits*, suggests that a group of firms decreased benefits when health care costs increased. Actions that clustered together (i.e., loaded high) in this response strategy include decreasing dental insurance, vision insurance, non-health benefits, health insurance, and other health-related coverage. This strategy accounts for 15.6 percent of the variation in firms' actions when health care costs increased.

The second factor, which I call *worker price of ESI*, suggests that a group of firms increased the cost to workers of ESI when health care costs increased. The factor-identified actions in this response strategy include increasing the amount the worker pays for the premium for other family members, the amount paid for single worker insurance, and the amount paid for copayments or coinsurance. This strategy accounts for about 11 percent of the variation explained in firms' actions when health care costs increased.

The third factor, which I call *ESI choice*, suggests that a group of firms decreased the choice of plans when health care costs increased. The factor-identified actions in this response strategy include decreasing the types of health plans offered, decreasing the number of health plans offered, and changing health insurance carriers. This strategy accounts for 10.7 percent of the variation explained in firms' actions when health care costs increased.

The fourth factor, which I call *workforce costs*, suggests that a group of firms traded ESI for wages and employment when health care costs increased. The factor-identified actions in this response strategy include giving fewer raises or reducing wages, increasing the proportion of workers not eligible for benefits, and reducing the workforce. This strategy accounts for about 10 percent of the variation in firms' actions when health care costs increased.

The fifth factor, which I call *access to benefits*, suggests that a group of firms reduced worker access to ESI when health insurance costs increased. The factor-identified actions in this response strategy include increasing the months of tenure needed to receive ESI and the minimum hours per week worked. This strategy accounts for 8.7 percent of the explained variation in firms' actions when health care costs increased.

## SMALL FIRMS' MOTIVATIONS FOR NOT OFFERING ESI

My factor analysis of the 11 reasons (using a 1-to-5 rating of importance, with "5" being "very important") why firms did not offer ESI generated four factor-identified motivations for not offering it. These four factors accounted

for 68.9 percent of the variation in the reasons why small firms do not offer ESI (Table B.3). I describe each of these factors in declining order of their ability to explain the behavior of large firms in offering benefits.

The first factor, which I call *costs too high*, suggests that one group of firms does not offer insurance because these firms are concerned about finances. The factor-identified reasons for not offering insurance that fall into this area of concern include the following: the business cannot afford it, premiums are too high, and revenue is uncertain. This motivation accounts for 20.5 percent of the variation in the reasons for not offering insurance.

The second factor, which I call *workforce characteristics*, suggests that one group of firms does not offer insurance because the firms in this group do not have a stable workforce. The factor-identified reasons for not offering insurance that fall into this area of concern include the following: worker turnover is too high, workers are temporary or part-time, and firms don't need to offer insurance to recruit and retain good workers. This motivation accounts for 18.4 percent of the variation in the reasons for not offering insurance.

The third factor, which I call *administrative costs and worker preference*, suggests that one group of firms does not offer insurance because they believe that either the firm lacks the capacity to offer insurance or its workers lack the capacity to accept it. The factor-identified reasons for not offering insurance that fall into this area of concern include these: the firm is too small or too new, workers prefer other forms of compensation, the setup is too complicated and too time-consuming, and workers cannot afford health insurance. This motivation accounts for 17.9 percent of the variation in the reasons for not offering insurance.

The fourth factor, which I call *healthy workers*, suggests that one group of firms does not offer insurance because these firms do not believe their workers need the insurance. The factor-identified reasons for not offering in this area of concern include the belief that workers are healthy and do not need it and that firms can attract good workers without offering health insurance. This motivation accounts for 12.1 percent of the variation in the reasons for not offering insurance.

## SMALL FIRMS' STRATEGIES FOR RESPONDING TO INCREASED HEALTH CARE COSTS

My factor analysis of the 16 actions small firms said they took when health care costs rose (1 = took the action, 0 = did not) produced five factors that explained about 60 percent of the variance in the actions they took (Table B.4).

These same five factors arose in the factor analysis described above for large firms.

The first factor, which I call *benefits*, suggests that a group of firms decrease benefits when health insurance costs increase. Actions that clustered together include decreasing vision insurance, dental insurance, non-health benefits, health insurance, and other health-related coverage. This response strategy accounts for about 16.4 percent of the variation explained in small firms' actions taken when health insurance costs increase.

The second factor, which I call *worker price of ESI*, suggests that a group of small firms increase the cost to workers of taking their health insurance offer when health care costs increase. The factor-identified actions in this strategy include increasing the amount the worker pays for the premium for other family members, the amount paid for single worker insurance, and the amount paid for copayments or coinsurance. This strategy accounts for 12.3 percent of the variation explained in small firms' response to increasing health care costs.

The third factor, which I call *workforce costs*, suggests that a group of firms trade insurance for wages and employment or increase revenue when health insurance costs increase. The factor-identified actions in this response strategy include giving fewer raises or reducing wages, reducing the workforce, and increasing the proportion of workers not eligible for benefits. This strategy accounts for 12.0 percent of the variation explained in small firms' response to increasing health care costs.

The fourth factor, which I call *ESI choice*, suggests that a group of small firms decreases the choice in the ESI plans when health insurance costs increase. The factor-identified actions in this response strategy include decreasing the number of health plans offered, decreasing the types of health plans offered, and changing health insurance carriers. This strategy accounts for 10.8 percent of the variation explained by our factor analysis in small firms' response to increasing health care costs.

The fifth factor, which I call *access*, suggests that a group of small firms reduces worker access to health insurance when health insurance costs increase. The factor-identified actions in this response strategy include increasing the minimum hours per week worked and the months of tenure needed to receive employment-based health insurance. This strategy accounts for 8.9 percent of the explained variance in small firms' response to increasing health care costs.

## Notes

1. During the factor extraction, the shared variance of a variable is partitioned from its unique variance and error variance to identify the underlying factor structure. Only the shared variance appears in the solution. This process contrasts with principal components analysis, which does not discriminate between shared and unique variance and, as a result, can produce inflated values of variance that are accounted for by the components. Costello and Osborne (2005) and Kim and Mueller (1978) provide a straightforward discussion of principal component and factor analysis.
2. We allowed the factor analysis to determine the number of factors that accounted for the observed covariation. We specified a variance-maximizing (varimax) rotation factor solution, which produces orthogonal (uncorrelated) extracted factors. We identified only factors with eigenvalues exceeding 1.0.
3. Factor scores are standardized with a mean of 0.0. About two-thirds of the values lie between 1.0 and –1.0 (and have a range of approximately 3.0 to –3.0).
4. Using 0.5 as a criterion for a significant loading is more stringent than the 0.3 rule of thumb and enables us to cleanly identify unique factors.

**Table B.1 Large-Firm Benefit Bundles**

| | Supplemental health benefits | Paid time benefits | Long-term health | Communality |
|---|---|---|---|---|
| Supplemental health benefits | | | | |
| Vision | 0.760** | –0.009 | –0.047 | 0.579 |
| Dental | 0.730** | 0.198 | –0.122 | 0.586 |
| Life insurance | 0.660** | 0.271 | 0.239 | 0.567 |
| Long-term disability (wage replacement) | 0.585** | 0.242 | 0.302 | 0.492 |
| Paid time benefits | | | | |
| Paid vacation | 0.076 | 0.795** | 0.005 | 0.639 |
| Paid holidays | 0.113 | 0.773** | 0.025 | 0.612 |
| Paid sick leave | 0.290 | 0.660** | 0.022 | 0.521 |
| Long-term health benefits | | | | |
| Retiree health | –0.102 | 0.097 | 0.806** | 0.670 |
| Long-term health care (e.g., nursing home) | 0.202 | –0.056 | 0.706** | 0.542 |
| Pension | 0.403 | 0.387 | 0.243 | 0.371 |
| Factor characteristics | | | | |
| Overall variance explained | 2.204 | 2.000 | 1.374 | 5.579 |
| Percentage variance explained | 22.0 | 20.0 | 13.7 | 55.8 |
| *N* (unweighted) | | 659 | | |

NOTE: "Benefits" are defined as binaries that capture whether a benefit is offered. "Pension" is captured as whether a firm offered either a defined contribution or a defined benefit plan. Item-specific nonresponse lowered the number of large firms available for analysis. Numbers in the factor loading columns show the factor score vectors from a varimax-rotated factor analysis. The "Overall variance explained" row shows the amount of variance the factor explains. "Percentage variance explained" represents the percentage of the variance each factor explains. "Communality" numbers show the amount of variance an original variable shares with the other variables. Observations were weighted so that the distribution of the sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

**Table B.2 Large-Firm Strategies for Rising Health Care Costs**

| | Benefits | Worker price of ESI | ESI choice | Workforce costs | Access to benefits | Communality |
|---|---|---|---|---|---|---|
| Benefits | | | | | | |
| Decrease dental insurance | 0.815** | –0.016 | 0.036 | 0.037 | 0.172 | 0.697 |
| Decrease vision insurance | 0.753** | –0.087 | 0.090 | –0.078 | 0.150 | 0.611 |
| Decrease non-health benefits | 0.641** | 0.054 | 0.003 | 0.116 | –0.107 | 0.439 |
| Decrease health insurance coverage | 0.625** | 0.133 | 0.139 | 0.251 | 0.216 | 0.537 |
| Decrease other health-related coverage | 0.590** | 0.025 | 0.136 | 0.024 | –0.063 | 0.371 |
| Worker price of ESI | | | | | | |
| Increase worker payment, family coverage | 0.076 | 0.901** | 0.058 | 0.022 | 0.048 | 0.824 |
| Increase worker payment, single coverage | –0.013 | 0.897** | 0.092 | –0.021 | –0.001 | 0.814 |
| Increase copayment or coinsurance | –0.003 | 0.302 | 0.296 | 0.334 | –0.072 | 0.295 |
| ESI choice | | | | | | |
| Decrease variety of health plans offered | 0.122 | 0.042 | 0.808** | 0.014 | 0.052 | 0.672 |
| Decrease number of health plans offered | 0.048 | 0.045 | 0.772** | 0.093 | 0.098 | 0.619 |
| Change health insurance carriers | 0.119 | 0.070 | 0.514** | –0.027 | –0.115 | 0.298 |
| Workforce costs | | | | | | |
| Give fewer raises or reduce wages | 0.081 | 0.033 | 0.025 | 0.789** | 0.050 | 0.633 |
| Reduce workforce | 0.003 | 0.016 | 0.191 | 0.549** | 0.416 | 0.511 |
| Increase workers not eligible for ESI | 0.117 | –0.045 | –0.073 | 0.682** | –0.077 | 0.492 |
| Access to benefits | | | | | | |
| Increase months to receive ESI | –0.036 | –0.040 | –0.095 | –0.008 | 0.763** | 0.594 |
| Increase hours to receive ESI | 0.237 | 0.066 | 0.049 | 0.036 | 0.690** | 0.540 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Factor characteristics | | | | | | |
| Overall variance explained | 2.496 | 1.755 | 1.714 | 1.597 | 1.388 | 8.950 |
| Percentage variance explained | 15.6 | 11.0 | 10.7 | 10.0 | 8.7 | 55.9 |
| *N* (unweighted) | | | 627 | | | |

NOTE: Item-specific nonresponse lowered the number of large firms available for analysis. The question was posed to firms offering health insurance: "In the past 3 to 5 years, in response to rising health care costs, did your firm . . . ?" Numbers in the factor loading columns show the factor score vectors from a varimax-rotated factor analysis. The "Overall variance explained" row shows the amount of variance the factor explains. "Percentage variance explained" represents the percentage of the variance each factor explains. "Communality" numbers show the amount of variance an original variable shares with the other variables. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant at the 0.05 level.

SOURCE: CHES (Maxwell 2007).

**Table B.3 Small Firms' Motivations for Not Offering ESI**

| | Costs too high | Worker characteristics | Administrative costs and worker preference | Healthy workers | Communality |
|---|---|---|---|---|---|
| Costs too high | | | | | |
| Business cannot afford it | 0.886** | –0.001 | 0.261 | –0.021 | 0.853 |
| Premiums too high | 0.763** | 0.144 | 0.284 | 0.045 | 0.685 |
| Revenue too uncertain to commit to a plan | 0.643** | 0.316 | –0.075 | 0.455 | 0.726 |
| Worker characteristics | | | | | |
| Worker turnover too high | 0.188 | 0.849** | 0.038 | –0.030 | 0.759 |
| Workers temporary or part-time | 0.203 | 0.826** | 0.053 | –0.115 | 0.740 |
| Can recruit and retain good workers without it | –0.178 | 0.620** | 0.320 | 0.269 | 0.591 |
| Administrative costs and worker preference | | | | | |
| Firm is too small or new | 0.233 | 0.057 | 0.669** | –0.307 | 0.599 |
| Workers prefer wages or other benefits | –0.044 | 0.301 | 0.678** | 0.403 | 0.714 |
| Setup too complicated and time-consuming | 0.208 | 0.011 | 0.637** | 0.164 | 0.476 |
| Workers cannot afford it | 0.504** | 0.131 | 0.622** | 0.034 | 0.655 |
| Healthy workers | | | | | |
| Workers healthy and do not need it | 0.116 | –0.073 | 0.103 | 0.865** | 0.777 |
| Factor characteristics | | | | | |
| Overall variance explained | 2.252 | 2.024 | 1.972 | 1.329 | 7.576 |
| Percentage variance explained | 20.5 | 18.4 | 17.9 | 12.1 | 68.9 |
| *N* (unweighted) | | | 150 | | |

NOTE: Firms not offering health insurance were asked to use a scale from 1 to 5 ("5" being "Very important") to rate how important each item was in their decision not to offer it. Numbers in the factor loading columns show the factor score vectors from a varimax-rotated factor analysis. The "Overall variance explained" row shows the amount of variance the factor explains. "Percentage variance explained" represents the percentage of the variance each factor explains. "Communality" numbers show the amount of variance an original variable shares with the other variables. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant at the 0.05 level.
SOURCE: CHES (Maxwell 2007).

**Table B.4 Small-Firm Strategies for Rising Health Care Costs**

| | Benefits | Worker price of ESI | Workforce costs | ESI choice | Access to benefits | Communality |
|---|---|---|---|---|---|---|
| Benefits | | | | | | |
| Decrease vision insurance | 0.817** | 0.060 | –0.044 | 0.026 | 0.004 | 0.674 |
| Decrease dental insurance | 0.784** | 0.057 | 0.001 | 0.021 | 0.146 | 0.640 |
| Decrease non-health benefits | 0.669** | 0.125 | 0.141 | 0.219 | 0.054 | 0.534 |
| Decrease health insurance coverage | 0.594** | 0.206 | 0.412 | 0.208 | –0.153 | 0.632 |
| Decrease other health-related coverage | 0.569** | 0.006 | 0.004 | 0.161 | 0.419 | 0.525 |
| Worker price of ESI | | | | | | |
| Increase amount worker pays for other family members | 0.065 | 0.823** | 0.133 | –0.008 | 0.083 | 0.706 |
| Increase amount worker pays for single worker health coverage | 0.090 | 0.808** | 0.041 | 0.171 | 0.162 | 0.717 |
| Increase copayment or coinsurance | 0.159 | 0.606** | 0.248 | 0.176 | –0.082 | 0.492 |
| Workforce costs | | | | | | |
| Give fewer raises or reduce wages | 0.035 | 0.085 | 0.782** | 0.121 | 0.091 | 0.487 |
| Reduce workforce | –0.019 | 0.047 | 0.724** | 0.021 | 0.011 | 0.594 |
| Increase workers not eligible for benefits | 0.162 | 0.268 | 0.667** | –0.025 | 0.224 | 0.642 |
| ESI choice | | | | | | |
| Decrease number of health plans offered | 0.193 | 0.016 | 0.053 | 0.782** | 0.109 | 0.570 |
| Decrease variety of health plans offered | 0.267 | 0.052 | 0.206 | 0.737** | –0.041 | 0.661 |
| Change health insurance carriers | –0.069 | 0.323 | –0.079 | 0.609** | 0.000 | 0.585 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Access to benefits | | | | | | |
| Increase hours to receive health benefits | –0.005 | 0.082 | 0.079 | –0.052 | 0.745** | 0.664 |
| Increase months to receive benefits | 0.173 | 0.051 | 0.120 | 0.092 | 0.728** | 0.527 |
| Factor characteristics | | | | | | |
| Overall variance explained | 2.616 | 1.960 | 1.925 | 1.731 | 1.419 | 9.650 |
| Percentage variance explained | 16.4 | 12.3 | 12.0 | 10.8 | 8.9 | 60.3 |
| *N* (unweighted) | | | | 477 | | |

NOTE: The question was posed to firms offering health insurance: "In the past 3 to 5 years, in response to rising health care costs, did your firm . . . ?" Numbers in the factor loading columns show the factor score vectors from a varimax-rotated factor analysis. The "Overall variance explained" row shows the amount of variance the factor explains. "Percentage variance explained" represents the percentage of the variance each factor explains. "Communality" numbers show the amount of variance an original variable shares with the other variables. Boldface indicates factor loadings that are greater than 0.5. Observations have been weighted so that the distribution of sample firms reflects the proportion of firms in the United States with respect to size and industry. ** significant at the 0.05 level.
SOURCE: CHES (Maxwell 2007).

# Appendix C
# Defining Empirical Constructs

This appendix provides a detailed description of the empirical constructs used as dependent variables in the multivariate analysis in Chapters 3, 4, and 5.

**C.1 Description of the Empirical Constructs Used as Dependent Variables in the Multivariate Analysis**

| | |
|---|---|
| Offer | |
| ESI | A 0,1 binary variable, with "1" indicating that the firm offers health benefits to its workers. |
| Access | |
| More than 30 hours required | A 0,1 binary variable, with "1" indicating that the firm requires an employee to work more than 30 hours a week before receiving an offer of health insurance. |
| No wait time | A 0,1 binary variable, with "1" indicating that a worker is eligible for health insurance as soon as employment begins (or at the beginning of the first month following employment). |
| More than 3 months' wait | A 0,1 binary variable, with "1" indicating that a worker must wait more than three months before receiving an offer of health insurance. |
| Quality | |
| 90%+ firm-paid premium | A 0,1 binary variable, with "1" indicating that the firm pays at least 90 percent of the health insurance premium. |
| At least 2 plans offered | A 0,1 binary variable, with "1" indicating that the firm offers at least two health plans. |
| At least 2 types offered | A 0,1 binary variable, with "1" indicating that the firm offers at least two different types of health plans (conventional, HMO, PPO, POS, and other). |
| Strategies for rising health care costs | |
| Wages and access | The number of the following actions the firm took in response to rising health care costs: gave fewer raises or reduced wages, reduced workforce, increased workers not eligible for ESI, increased months to receive ESI, or increased hours to receive ESI. |
| ESI choice | The number of the following actions the firm took in response to rising health care costs: increased amount worker pays for family coverage, increased amount worker pays for single coverage, increased copayment or coinsurance, decreased variety of health plans offered, decreased number of health plans offered, or changed health insurance carriers. |

| | |
|---|---|
| Benefits | The number of the following actions the firm took in response to rising health care costs: dental insurance, vision insurance, non-health benefits, health insurance, or other health-related insurance. |
| Motivations for not offering ESI | |
| Costs too high | The number of the following reasons that a firm found to be important for not offering ESI: premiums too high, business cannot afford it, or revenue too uncertain to commit to a plan. |
| Worker characteristics | The number of the following reasons that a firm found to be important for not offering ESI: can recruit and retain good workers without it, workers temporary or part-time, or worker turnover too high. |
| Administrative costs and worker preferences | The number of the following reasons that a firm found to be important for not offering ESI: firm is too small or new, workers cannot afford it, workers prefer wages or other benefits, or setup too complicated and time-consuming. |
| Healthy workers | A 0,1 binary variable, with 1 indicating that the firm said that workers were healthy and did not need ESI as an important reason for not offering it. |
| Workforce skills | |
| Low-skilled | A 0,1 binary variable, with "1" indicating that the firm had a majority of positions filled by low-skilled workers (those with no more than a high-school education and one year of work experience when starting the position). |
| High-skilled | A 0,1 binary variable, with "1" indicating that the firm had a majority of positions filled by high-skilled workers (those with at least a bachelor's degree or five years of work experience when starting the position). |

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| Firm size[a] | |
| 5–19 workers | A 0,1 binary variable, with "1" indicating that the firm had between 5 and 19 workers at all locations. |
| 20–50 workers | A 0,1 binary variable, with "1" indicating that the firm had between 20 and 50 workers at all locations. |
| 51+ workers | A 0,1 binary variable, with "1" indicating that the firm had at least 51 workers at all locations. |
| Firm characteristics (control factors)—Industry[b] | |
| Service | A 0,1 binary variable, with "1" indicating a firm in the service sector (1987 SIC of 70–72, 74–79, 81, 83–86, 88–89). |
| Retail trade | A 0,1 binary variable, with "1" indicating a firm in the retail sector (1987 SIC of 52–60). |
| Business services | A 0,1 binary variable, with "1" indicating a firm in the business service sector (1987 SIC of 73 or 87, which includes engineering, accounting, research, management, and related services as business services). |
| FIRE | A 0,1 binary variable, with "1" indicating a firm in the finance, insurance, or real estate sector (1987 SIC of 60–68). |
| Construction | A 0,1 binary variable, with "1" indicating a firm in the construction sector (1987 SIC of 15–17). |
| Education and medical | A 0,1 binary variable, with "1" indicating a firm in the education or medical sector (1987 SIC of 80 or 82). |
| Manufacturing | A 0,1 binary variable, with "1" indicating a firm in the manufacturing sector (1987 SIC of 20–39). |
| Wholesale trade | A 0,1 binary variable, with "1" indicating a firm in the wholesale trade sector (1987 SIC of 50–51). |

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|---|---|
| TCPU | A 0,1 binary variable, with "1" indicating a firm in the transportation, communications, electric, gas and sanitary services sector (1987 SIC of 40–49). |
| Agriculture and mining | A 0,1 binary variable, with "1" indicating a firm in the agriculture or mining sector (1987 SIC of 10–14). |
| Other firm characteristics | |
| For-profit | A 0,1 binary variable, with "1" indicating that the firm is a for-profit organization. |
| Rural | A 0,1 binary variable, with "1" indicating that the firm is located in a nonmetropolitan area. |
| Union representation | A 0,1 binary variable, with "1" indicating that a union was present in the firm. Constructed according to whether workers in the typical low-skilled, mid-skilled, or high-skilled job were represented by a union. |

[a] Omitted category in multivariate estimations is firms with 300+ workers.

[b] Based on 1987 SIC classification (OSHA 2010). Omitted categories in multivariate estimations are agriculture, forestry, fishing, mining, and construction.

SOURCE: Author's compilation.

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